State of California • State and Consumer Services Agency • Gray Davis, Governor
DEPARTMENT OF GENERAL SERVICES
Executive Office • 1325 J Street, Suite 1910 • Sacramento, California 95814-2928 • (916) 445-4145

February 23, 2001

Mr. Bion M. Gregory
Legislative Counsel
State Capitol, Room 3021, B-30
Sacramento, CA 95814

Dear Mr. Gregory:

Assembly Bill 1198 (Chapter 887, Statutes of 1997), by Assembly Member Hertzberg, required the State 9-1-1 Program to conduct a pilot program to evaluate alternative means to reduce the use of the 9-1-1 telephone number for non-emergency assistance. In response to Government Code Section 53125(e), the Department of General Services is submitting the results of the pilot program.

If you have any questions, or require additional information regarding the pilot program, please call Cynthia Larson-Schwartz, Assistant Deputy Director, Office of Network Services, Telecommunications Division, at (916) 657-3189.

Very truly yours,

BARRY D. KEENE, Director
Department of General Services

BDK:AH:mm/Gregory – 311 Final Rpt. 12-00

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State and Consumer Services Agency
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Department of Finance
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Sacramento, CA 95814
(1 copy)

Fred Klass, Program Budget Manager
Department of Finance
915 L Street, A-15
Sacramento, CA 95814
(1 copy)

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Department of General Services
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Sacramento, CA 95814
(1 copy)

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LEGISLATURE--REVISED 06/28/00

REPORT TO THE GOVERNOR AND LEGISLATURE:

NON-EMERGENCY NUMBER PILOT PROGRAMS

CITY OF SAN DIEGO

CITY OF SAN JOSE

November 2000

Table of Contents

Executive Summary

In 1997, the California Legislature determined that the public's use of the 9-1-1 telephone number in non-emergency situations places a burden on the state's 9-1-1 system by diverting the attention of 9-1-1 call takers and dispatchers from true emergencies. Recognizing the public's needs both for continued effective and efficient 9-1-1 services and for an alternative means of reaching public safety agencies in non-emergencies, the Legislature enacted Assembly Bill (AB) 1198. AB 1198 instructed the California Department of General Services, Telecommunications Division (the DGS-TD) to explore alternative strategies for reducing the public's use of the 9-1-1 telephone number in non-emergency situations. To evaluate alternative methods for providing non-emergency assistance to the public, AB 1198 required the DGS-TD to select two venues where two alternatives identified by the Legislature could be assessed through pilot programs. The two alternatives proposed by the Legislature were:

- Introduction of the 3-1-1 non-emergency telephone number; and
- Improved marketing of an existing 7-digit non-emergency telephone number.

Pilot Overview

The DGS-TD selected San Jose and San Diego as the pilot cities because they shared similar population size and demographics and because their automated 9-1-1 equipment could easily report a variety of 9-1-1 call statistics. In undertaking the pilot programs, both cities hoped to achieve similar objectives:

- Reduction in the number of non-emergency calls to 9-1-1; and
- Improvement in 9-1-1 answering time.

Both cities confined access to their non-emergency numbers to their own city limits and supported the use of the non-emergency telephone number only for communication between the public and law enforcement.

San Jose

With the launch of its pilot in November 1997, San Jose became the first municipality in California to make the 3-1-1 non-emergency number available to the public. At that time, the city began automatically routing all 3-1-1 calls placed within the geographic boundaries served by the city's

3-1-1 non-emergency number to the San Jose Police Department's 9-1-1 Call Center. To increase public awareness, the city also launched a public education campaign coincident with initiation of 3-1-1 services.

San Diego

Like San Jose, the city of San Diego sought to improve its 9-1-1 services by offering the public an alternative means of communicating with law enforcement in non-emergency situations. However, San Diego hoped to achieve its improvements without incurring the expense of network and equipment upgrades. The city instead focused on raising the visibility and public awareness of its existing 7-digit non-emergency number.

San Diego's pilot officially began in June 1999 with the launch of its public education campaign, Project 2000.[1] The campaign targeted specific audiences, including children, and took into account the city's geographic, cultural and demographic diversity, creating marketing materials in both Spanish and English.

Summary of Pilot Results

Despite increases in their respective populations, both cities experienced some reduction in the overall total number of 9-1-1 calls they received during the pilots. The reduction in total calls in San Jose was proportionally greater than the reduction in San Diego. San Jose also achieved a reduction in the average time that callers wait before speaking to a call taker.

Neither city increased its 9-1-1 call center staff during the pilot period. Because call takers in both cities had been previously trained to respond to requests for emergency assistance, neither city's call takers required additional training.

In both cities, the pilot participants found little public confusion about the use of their non-emergency telephone numbers and both cities enjoyed positive public reactions to their respective programs.

Conclusion

The 3-1-1 and non-emergency telephone number pilots conducted in San Diego and San Jose have yielded some data indicating that both. solutions, in combination with concerted public education, reduce the number of non-emergency calls, and, therefore, lessen the burden placed on local agencies responsible for providing public safety answering systems. However, it is not possible to draw solid conclusions from the data.

[1] The pilot, originally scheduled to begin in June 1998, was postponed until the following June because of unrelated issues surrounding installation of a new 9-1-1 system.

It is very important to remember that both San Jose and San Diego enjoyed success with their respective solution for employing non-emergency telephone numbers. The key to that success lies in part in the effectiveness of their public education campaign. Both cities have plans to continue using their existing systems. Because the needs of local jurisdictions vary uniquely to the extent that there are demographic and geographic variations, so too should their ability to meet those needs.

The viability of the 3-1-1 system is not in question. Although, statistically, the data did not bear this out during the pilot period, intuitively we know that a three-digit number is easier to remember than a 7-digit number. However, unlike the 9-1-1 environment where lives and property are in immediate jeopardy, the 3-1-1 concept lends itself to a myriad of implementation options. Local agencies already have the authority to implement a 3-1-1 system if it meets the needs of their particular jurisdiction.

From an anecdotal perspective, inferences can be drawn concerning the use and efficiency of a 3-1-1 system. However, caution should be observed before using the data from these limited pilots for statewide application.

Californians place a high priority on the effectiveness and efficiency of the 9-1-1 system. Demographics as well as the technical and regulatory forces shaping the telecommunications industry will continue to challenge the ability of the state's 9-1-1 system to deliver the quality of service the public demands. The 3-1-1 and 7-digit non-emergency telephone number pilots described in this document illustrate the potential and the challenges – both technical and fiscal – that are not yet resolved.

The data collected from the Non-emergency Number Pilot Project was inconclusive. Until more conclusive information is presented, the state should not invest in a non-emergency telephone number program to be implemented statewide.

Background

Dialing 9-1-1 is the most familiar and effective way for the public to obtain help in an emergency. In 1998, more than 19 million 9-1-1 calls were placed in California and that number is expected to grow to 23 million by the end of the current year.

A community of state and local government agencies dedicated to saving lives and protecting property provides 9-1-1 services throughout California. Rapid advances in technology, increasing population and explosive growth in wireless telephone usage challenge the ability of this community to deliver the highest quality 9-1-1 services available.

9-1-1

Of the millions of 9-1-1 calls placed each year in California, the vast majority are answered in the state's large metropolitan areas or by the California Highway Patrol. Therefore, a small percent of the state's nearly 500 Public Safety Answering Points (PSAPs) bear the greatest burden. Of the multiple factors affecting 9-1-1 service, the number of 9-1-1 calls is one of the most fundamental. Efforts to improve 9-1-1 service nearly always focus on either reducing the number of 9-1-1 calls or easing the call taker's tasks so that calls can be handled more quickly.

The number of 9-1-1 calls is affected by several complex circumstances.

1. Calls do not arrive at regular intervals but tend to cluster around largely unpredictable emergency events.
2. Duplicate calls contribute to the overall total. Call takers, particularly the California Highway Patrol, which by law must answer all 9-1-1 calls placed on cellular telephones, often receive multiple 9-1-1 calls reporting the same event.
3. Some 9-1-1 calls are the result of dialer error. Examples of dialer error that contribute significantly are the following:
    - Inadvertent pressing of a speed dial key on a cellular phone programmed to dial 9-1-1 when only a single key is depressed; and
    - Dialing 9 to reach an outside line from a PBX system and failing to wait for the dial tone before continuing to dial.

    In a study of locations with abandoned call rates greater than 20 percent conducted by the SBC Corporation

(formerly Pacific Bell) during August 2000, the locations with the highest abandoned call rate were locations where it is necessary to dial 9 to reach an outside line.

4. Statewide, an estimated 45 percent of all calls to 9-1-1 are non-emergency calls. [2]

3-1-1

The Federal Communications Commission (FCC) has deemed non-emergency calls to 9-1-1 to be a potent detriment to effective emergency response. In 1996, the FCC ordered the three-digit telephone number, 3-1-1, to be set aside for public use in non-emergencies. Since that time, a number of cities within California and throughout the United States have adopted 3-1-1 programs. The city of Los Angeles, Los Angeles County, Houston, Baltimore, and Rochester, New York, all have pilots or ongoing 3-1-1 programs. Numerous other agencies publish and publicize 7-digit non-emergency numbers that provide a single communication conduit between government and the public.

While the primary purpose of non-emergency numbers is to provide the public with simple, direct communication with public agencies, jurisdictions also have adopted these numbers in the hope that, by providing an easily remembered telephone number, the public will be encouraged to limit its use of 9-1-1 to true emergencies. In some cases, the 3-1-1 program appears to have achieved the anticipated success. For example, since launching its 3-1-1 program, the city of Baltimore has experienced a reduction in total 9-1-1 calls and non-emergency calls to 9-1-1.

In California, non-emergency calls to 9-1-1 PSAPs account for a significant number of the total calls received. The state's 3-1-1 Strategic Plan, which was developed by a task force led by the Department of Justice, estimated that as many as 45 percent of all 9-1-1 calls placed within the state relate to non-emergency situations. The California Legislature also concluded that the drain on call takers' time caused by non-emergency calls to the 9-1-1 telephone number poses a potentially serious threat to the state's 9-1-1 service. AB 1198, which is the subject of this report, was a first step by the Legislature to address their concerns.

In 2000, the Legislature passed a subsequent bill, AB 2837, authorizing local public agencies responsible for providing a public safety answering system to establish a local non-emergency telephone system. The bill, which provided for local funding of each regional 3-1-1 service, directed the DGS-TD to establish operational standards, set rates and administer the service. Governor Davis vetoed the measure because the potential costs are not yet known but further directed the California Public Utilities

[2] California Department of Justice 3-1-1 Non-emergency Telecommunications System Strategic Plan, March 1998, p.

Commission (CPUC), which is coordinating implementation of 2-1-1 and 5-1-1 with the Federal Communications Commission, to evaluate the provision of 3-1-1 services in concert with their existing 2-1-1 and 5-1-1 proceedings. The CPUC will be conducting workshops in Spring of 2001 to solicit input from local agencies. From these workshops the CPUC will evaluate the relationship between 2-1-1, 5-1-1 and 3-1-1 and what potential impact or confusion implementing all three numbers may create. It is anticipated the CPUC will have the results of these workshops before the end of 2001.

Costs

Quantification of the cost of statewide non-emergency number service depends on a number of issues including:

- Number of agencies participating;
- Level of services provided by those agencies;
- Equipment, staffing, and public relations costs; and
- State of California's cost to administer the 3-1-1 program.

The 3-1-1 telephone number was originally envisioned as a means for the public to contact law enforcement agencies in non-emergency circumstances. However, in many jurisdictions, the public can gain access to both law enforcement and other government agencies by dialing an all-purpose 7-digit non-emergency telephone number. Similar access is either being contemplated or has already been implemented for the 3-1-1 telephone number. Consequently, the number of agencies that may participate is not known.

Unlike the 9-1-1 system, which provides a public safety answering system 24 hours a day, 365 days a year, 3-1-1 or other non-emergency telephone number system that provides access to a variety of government services may have a corresponding variation in service level and staffing requirements.

A caller dialing 9-1-1 reaches a live call taker who has received special training. In both the San Diego and San Jose pilots, 9-1-1 call takers answered calls to the 7-digit non-emergency number and to 3-1-1.

Because of their specialized skills, these call takers have the ability to recognize and handle an emergency call that arrives via a non-emergency telephone number. However, calls that are not true emergencies might be handled by staff that have less specialized skills, command lower salaries, and are not in as short supply as trained and experienced emergency call takers. Arguably, many non-emergency calls need not be handled by a human being. Simple inquiries, requests for forms, and document copies, in many cases, can be effectively managed by an Interactive Voice Response System (IVR), such as the system that provided the initial answer to 3-1-1 calls in San Jose.

The State of California 9-1-1 Program distributes approximately $95 million per year in funds for acquisition and maintenance of specific 9-1-1 call answering and call management equipment (Customer Premise Equipment or CPE) housed in the state's PSAPs, all of which are staffed and managed either by local government or by the California Highway Patrol.

Funding for 9-1-1 CPE is derived from a surcharge on telephone service in California. Funding for salaries and other costs are the responsibility of local jurisdictions.

A similar program for 3-1-1 CPE does not exist. Given that local agencies already have the authority to implement a 3-1-1 program tailored to the needs of their serving community, it would be difficult for the state to design a program that anticipates those needs on a statewide basis. Other questions about such a program remain:

- What 3-1-1 CPE will be required at each PSAP?
- What 3-1-1 CPE will be funded by the state?
- What will be the source of funding for 3-1-1 CPE costs paid by the state?

Public education was a key element of the San Diego and San Jose pilots. Both cities expended dollars and staff time developing and delivering marketing materials to the public. Ongoing public education will continue to be an important component of the effort to promote responsible use of the 9-1-1 telephone number.

The administrative costs associated with the 9-1-1 Program are approximately $1 million per year. Administration of a similar program for 3-1-1 would require additional staff.

3-1-1 Implementation Issues

In California, a network of agencies responsible for public safety answering systems provide access to law enforcement and other emergency services across disparate venues, both urban and rural, having both high and low population densities, and both homogeneous and heterogeneous cultural and demographic profiles. A common purpose, mutual aid agreements, long-standing working relationships and state-of-the-art technology allow public safety answering agencies to deliver rapid, coordinated response across geographic and jurisdictional boundaries. The potential wide variation in 3-1-1 and non emergency telephone number venues, particularly if services are extended beyond law enforcement and public safety agencies, will increase the challenge of constructing a similar infrastructure for 3-1-1 and 7-digit non-emergency response.

Technical Solution

The following paragraphs describe the technical solution implemented by San Jose and compare the solution to the existing 9-1-1 system and to the 7-digit non-emergency telephone number used in the San Diego Pilot.

The technical solution adopted by San Jose required modification of the network and equipment needed to transmit 3-1-1 calls. The Public Switched Telephone Network (PSTN) had to be modified to automatically route 3-1-1 calls placed within the pilot's geographic boundaries to the San Jose Police Department. The network also had to recognize 3-1-1 calls placed outside San Jose and notify the caller that 3-1-1 was not currently supported in locations beyond the city's limits[3]. The 9-1-1 Call Center's equipment was enhanced to recognize and process 3-1-1 calls. Figure 1 presents a conceptual overview of the 3-1-1 solution and its relationship to the existing Enhanced 9-1-1 and 7-digit non-emergency number.

[3] Callers using wireless telephones also received the intercept message indicating 3-1-1 service was not available.

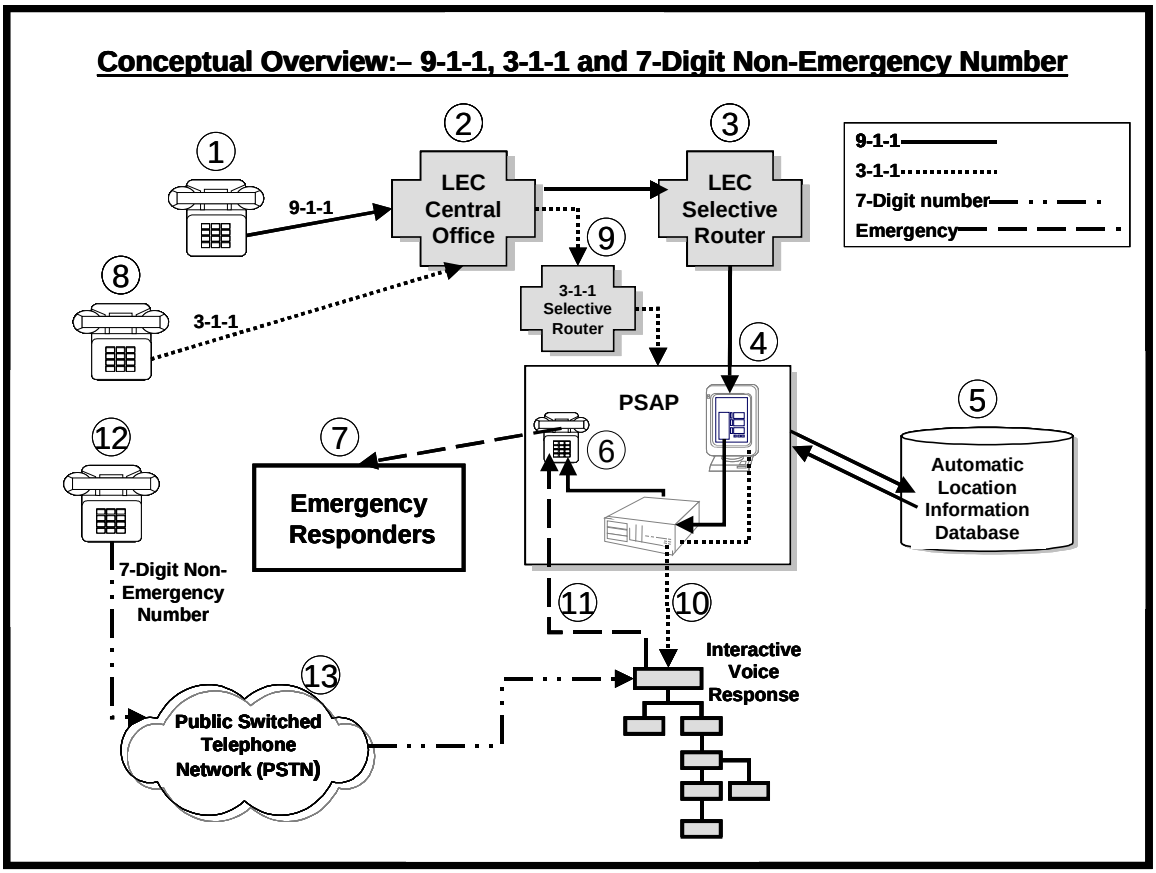


Figure 1

E9-1-1 Call Processing

The Enhanced 9-1-1 network includes components that are separate and distinct from the PSTN over which ordinary landline telephone calls are transmitted. All 9-1-1 landline telephone calls (1) enter the network at a Local Exchange Carrier (LEC) Central Office (2). A switch in the Central Office recognizes that the call is a 9-1-1 call and transmits it to a specialized switch called a selective router (3). Based on the caller's telephone number, the selective router selects the PSAP serving the caller's location and routes the call to that PSAP (4). Equipment within the PSAP queries an Automatic Location Information (ALI) Database to determine the caller's exact address (5) and presents the call, along with the caller's telephone number and address to a call taker (6). Based on the call taker's evaluation of the emergency situation, emergency responders are dispatched (7).

3-1-1 Call Processing

The 3-1-1 solution implemented in San Jose is built on the existing E9-1-1 network. The 3-1-1 telephone calls (8) enter the network at a Local Exchange Carrier (LEC) Central Office (2). A switch in the Central Office recognizes that the call is a 3-1-1 call and transmits it to a specialized switch (9) that contains a mirror image of the routing

information contained in the E9-1-1 selective router (3). Based on the caller's telephone number, the 3-1-1 selective router reroutes the call to the 7-digit non-emergency number at the City of San Jose's call center where it is answered by an auto attendant (a voice response system) programmed in English, Spanish and Vietnamese (10). The auto attendant guides the caller through a series of menus. At any point the caller has the option to press "0" (11) to be transferred to a call taker (8). Should the call taker determine that the call is an emergency, the call taker has the ability to seamlessly treat the call as a 9-1-1 call and dispatch the appropriate emergency personnel (7).

The city allows 3-1-1 callers who exercise caller Id blocking to remain anonymous. Automatic Number Identification (ANI) and Automatic Location Information (ALI) are not available to 3-1-1 call takers unless the call is deemed an emergency and transferred into the E9-1-1 system.

SBC Communications (formerly Pacific Bell) is the incumbent local exchange carrier (ILEC) providing landline Enhanced 9-1-1 service and equipment in the pilot area. SBC Communication owns the selective router switch and numerous communications links used to deliver 9-1-1 calls and information to the San Jose Police Department Call Center. SBC Communications provided 3-1-1 network-related project management services to the State of California and upgraded customer premise equipment (CPE) at participating PSAPs at no cost to the state.

7-digit Non-emergency Call Processing

Both San Diego and San Jose provide public 7-digit non-emergency numbers to reach their respective police departments. In San Jose, callers who dial the 7-digit non-emergency number reach the same auto attendant (10) as callers dialing 3-1-1. They hear the same menu options in their choice of languages and have the same ability to transfer to a live call taker. However, when the 7-digit non-emergency number is dialed, the call reaches its destination Call Center via the PSTN.

Other Factors

It has been argued that the real problem is not an overload of non-emergency calls to the 9-1-1 system, but rather a major shortage in 9-1-1 call takers and dispatchers. This shortage is pandemic across the nation, creating serious workload and call volume problems at Call Centers. Due to the high level of stress, non-traditional working hours and low pay, it has been very difficult for many Call Centers to recruit and retain qualified call takers or dispatchers. In turn, this shortage exacerbates the issue of call volume when the call taker must handle a

large amount of incoming traffic where there is insufficient staff to answer those calls, be they emergency or non-emergency.

Making this all the more challenging is the wireless telephone phenomenon. Legitimate 9-1-1 calls via wireless telephones have increased tremendously commensurate with the number of wireless telephones in service. Unlike the wireline environment, wireless 9-1-1 calls are routed through the PSTN hence no ANI or ALI information is delivered to the PSAP. Increased call processing time is the result, making the 9-1-1 call taker or dispatcher unavailable to accept another waiting 9-1-1 call for a longer period of time.

Implementing a 3-1-1 system would not necessarily alleviate this situation. San Jose uses the same call takers to answer 9-1-1 calls and 3-1-1 calls. This means that the 3-1-1 calls are merely diverted to a lower priority queue, but the same pool of people who answer 9-1-1 calls also answer 3-1-1 calls. When the waiting time for 3-1-1 calls becomes lengthy, often the caller hangs up and dials 9-1-1 because the call will then become a high priority and be answered promptly. This scenario does little to alleviate non-emergency call traffic on 9-1-1 lines.

San Diego, with its 7-digit non-emergency number, and San Jose, with its 3-1-1 non-emergency number, both experienced success in the public's acceptance and use of their respective numbers. The commonality between the two systems was effective marketing and public education. As long as they are reminded consistently through various forms of advertisements, the public responds positively to either number. Perhaps the real answer lies in the development of a comprehensive public education program, irrespective of which number a local agency chooses to employ for public access. Education certainly represents an important piece of the puzzle.

Cities such as Los Angeles, Pasadena and Sacramento are moving ahead with developing and implementing plans for 3-1-1 in their jurisdictions regardless of whether other agencies follow suit. In general, local agencies prefer to retain decision-making over how best to meet the needs of their citizens.

Overview of Data

The data summarized in this report were collected by the cities of San Diego and San Jose and by the 9-1-1 Program Office of the DGS-TD over a period of six years. During that period, the automated equipment used by both cities to support their emergency response systems changed. These changes possibly may have an impact on analysis and interpretation of the data presented here.

Data were collected to support four criteria listed in AB 1198 that would indicate improvement of 9-1-1 services:

- Fewer 9-1-1 calls;
- Faster answer time;
- Fewer abandoned calls; and
- Fewer non-emergency calls to 9-1-1.

Both of the pilot cities collected data about their 9-1-1 calls and calls made to their non-emergency telephone numbers: the 7-digit non-emergency number available in San Diego and both the 7-digit and 3-1-1 non-emergency numbers available in San Jose. In the following two sections of this report, data from each city's pilot are presented. For each of the relevant telephone numbers, the primary data consists of the following:

- Number of calls;
- Time before call is answered by a call taker; and
- Number of abandoned calls.

Abandoned calls are calls that are disconnected prior to being answered by a call taker or automated answering equipment. The 9-1-1 and non-emergency telephone number abandoned calls were counted in both of the pilots. 9-1-1 calls are not necessarily abandoned because the caller experiences a long wait for an answer. Many 9-1-1 calls are the result of caller error. Two examples are:

- Inadvertent pressing of a speed dial key on a cellular phone programmed to dial 9-1-1 when only a single key is depressed; and
- Dialing 9 to reach an outside line from a PBX system and failing to wait for the dial tone before continuing to dial.

In a study of locations with abandoned call rates greater than 20 percent conducted by SBC Corporation during August 2000, the locations with the

highest abandoned call rate were the University of California and the California State Universities with PBX's.

San Jose Pilot

The DGS-TD selected the City of San Jose to participate in the non-emergency number pilot authorized by AB 1198 and, in November 1997, San Jose became the first municipality in California to make the 3-1-1 non-emergency number available to the public. Beginning with its pilot, all 3-1-1 calls placed within the geographic boundaries served by the city's 3-1-1 non-emergency number are automatically routed by Pacific Bell, the Incumbent Local Exchange Carrier (ILEC) to the San Jose Police Department's 9-1-1 call center.

Goals and Objectives

In planning its 3-1-1 pilot, San Jose defined goals and objectives consistent with those described in AB 1198 including:

- Raising community awareness of 3-1-1 and communicating its appropriate uses; and
- Reducing the volume of 9-1-1 calls, especially non-emergency calls to the 9-1-1 number.

The city also developed a set of metrics to quantify their progress. Specifically, San Jose hoped that the pilot implementation of the 3-1-1 non-emergency telephone number would achieve the following:

- 10 percent or greater reduction in the number of calls made to 9-1-1;
- 10 percent or greater reduction in the time 9-1-1 call answering time;
- 95 percent of all 9-1-1 calls answered within 15 seconds; and
- 10 percent reduction in the number of abandoned 9-1-1 calls.

Pilot Approach

The approach chosen by San Jose comprised both the technical solution described in the Background Section of this report and an education campaign to advertise the new 3-1-1 telephone number to the public.

Public Education

In conjunction with its 3-1-1 implementation, the City of San Jose embarked on a campaign to educate and inform the public. With the assistance of the SBC Corporation and their advertising agency, Fleishman & Hilliard, the city developed a communications strategy, designed promotional materials, and produced events designed to raise the public's awareness of the appropriate uses of the 3-1-1 non-emergency telephone number.

The San Jose Police Department staff and the Crime Prevention Unit gave presentations at community and Neighborhood Watch meetings, assisted in the construction of a web page and designed 3-1-1 posters and slides to be presented in local theaters. The School Liaison and Crime Prevention Units and City Hall distributed thousands of magnets and flyers.

In total, the city spent $43,000 on their public education campaign, including $22,000 from the State 9-1-1 Program Grant and $21,000 from a grant by SBC Corporation. The SBC money was used to purchase and distribute posters hung in theaters, buses and kiosks, to produce and distribute slides shown in movie houses, and to create and distribute bumper stickers, flyers and refrigerator magnets. In addition, SBC Corporation, at no charge to the city, included flyers in three monthly bills and assisted the city in producing a number of public service announcements and communications with radio and news media.

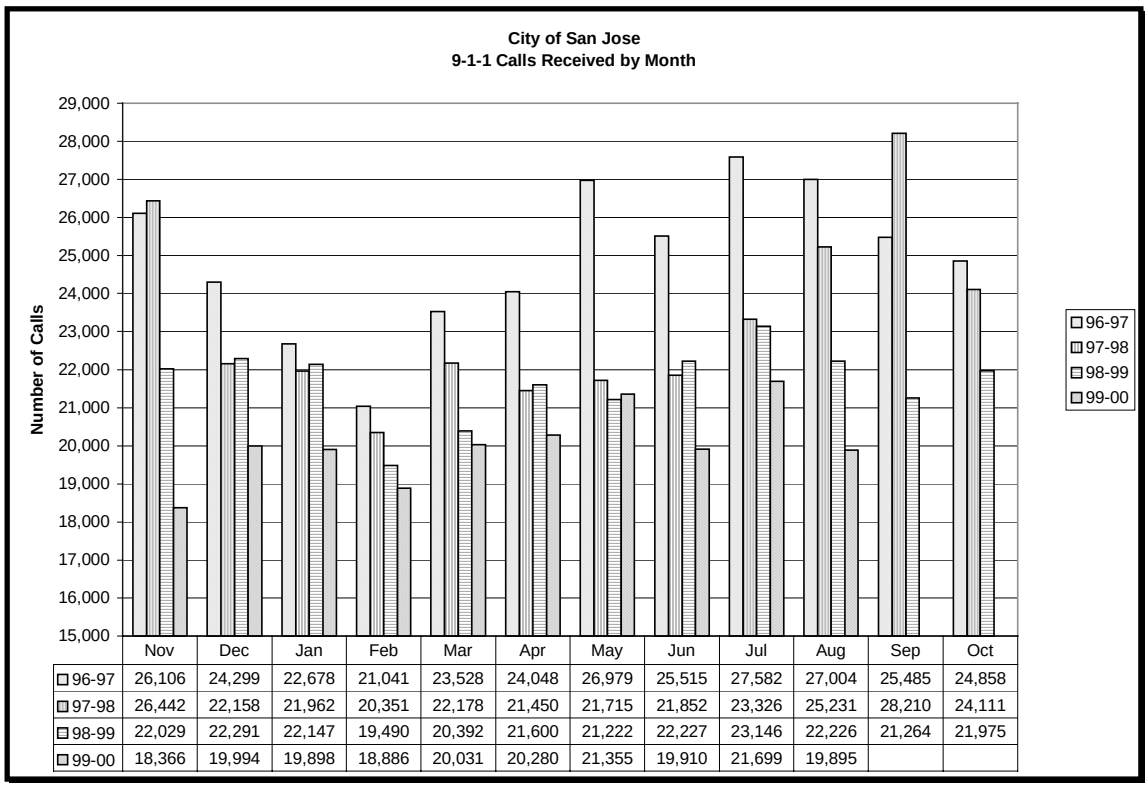
Resulting Data

Much of the data presented are from the start of the pilot, which began in November 1997; however, pre-pilot data are represented where available. In general, data are presented by month over a full-year period. To facilitate interpretation of trends, each year interval begins in November, the month that the pilot commenced and ends the following October.

9-1-1 Calls

Figure 2 shows the total number of 9-1-1 calls received by the City of San Jose for each month starting one year prior to the pilot, which began in November 1997. The totals represent the total number of 9-1-1 calls including calls that were abandoned before they were answered by a call taker. The graph shows seasonal variations in the number of calls

received, with increases during the summer months and the end-of-year holidays. During the time period covered by Figure 2, the California Department of Finance estimates that the population of San Jose increased from 892,000 to 924,000.

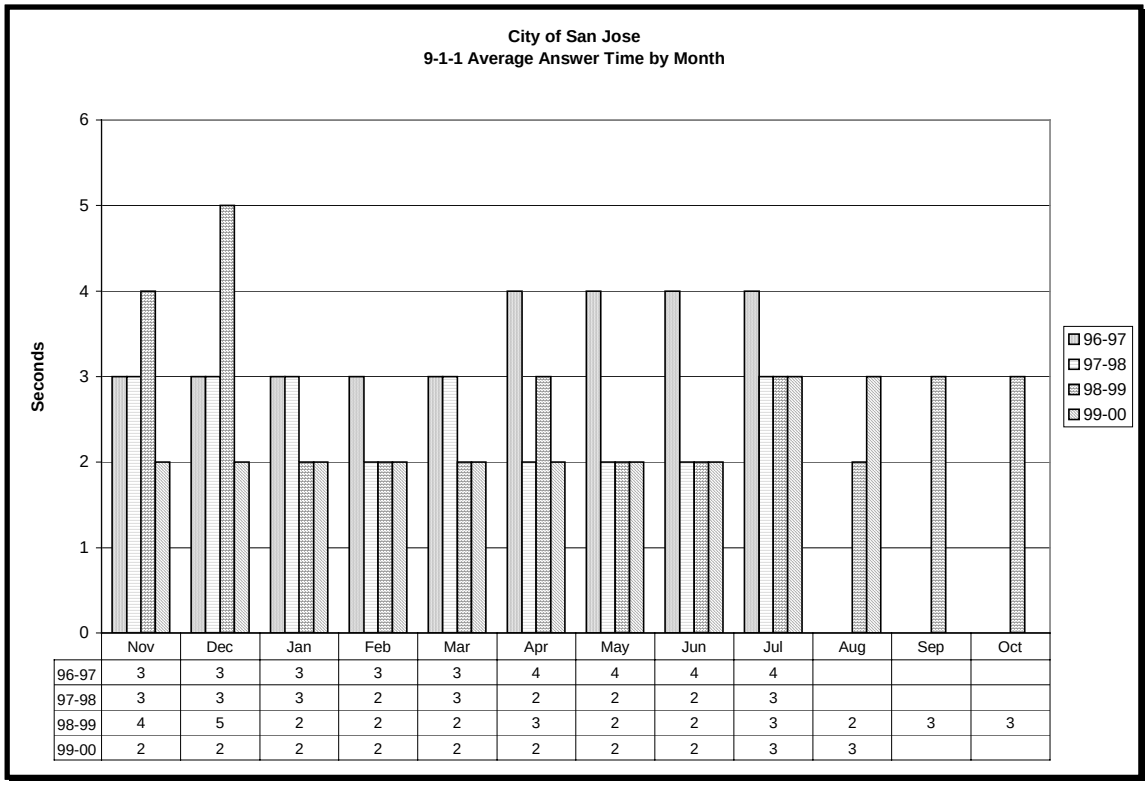


	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
96-97	26,106	24,299	22,678	21,041	23,528	24,048	26,979	25,515	27,582	27,004	25,485	24,858
97-98	26,442	22,158	21,962	20,351	22,178	21,450	21,715	21,852	23,326	25,231	28,210	24,111
98-99	22,029	22,291	22,147	19,490	20,392	21,600	21,222	22,227	23,146	22,226	21,264	21,975
99-00	18,366	19,994	19,898	18,886	20,031	20,280	21,355	19,910	21,699	19,895		

Figure 2

9-1-1 Call Answer Time

Figure 3 shows the average time taken by the San Jose Police Department to answer a 9-1-1 call for each month beginning one year before the pilot started in November 1997. The answer time is also called the “Answer Delay Time” and represents the time span from the time the call is received by the PSAP controller until a call taker picks up the line. In August 1998, the city replaced its SR 1000 9-1-1 call system with a newer M1 9-1-1 system. Consequently, it is possible that there are discrepancies between answering time data captured by the older system and answer time data captured by the newer system.



	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
96-97	3	3	3	3	3	4	4	4	4			
97-98	3	3	3	2	3	2	2	2	3			
98-99	4	5	2	2	2	3	2	2	3	2	3	3
99-00	2	2	2	2	2	2	2	2	3	3		

Figure 3

Figure 4 and Figure 5 show relationships between the number of 9-1-1 calls received and the average answering time.

Figure 4 compares the total number of 9-1-1 calls received each month that data are available with the average answering time for that month. Figure 5 indicates that, for months when data are available, more than 90 percent of 9-1-1 calls were answered within 12 seconds of being received. The average answering time is much lower than 12 seconds, ranging between two and five seconds with the average for most months falling at three seconds or below.

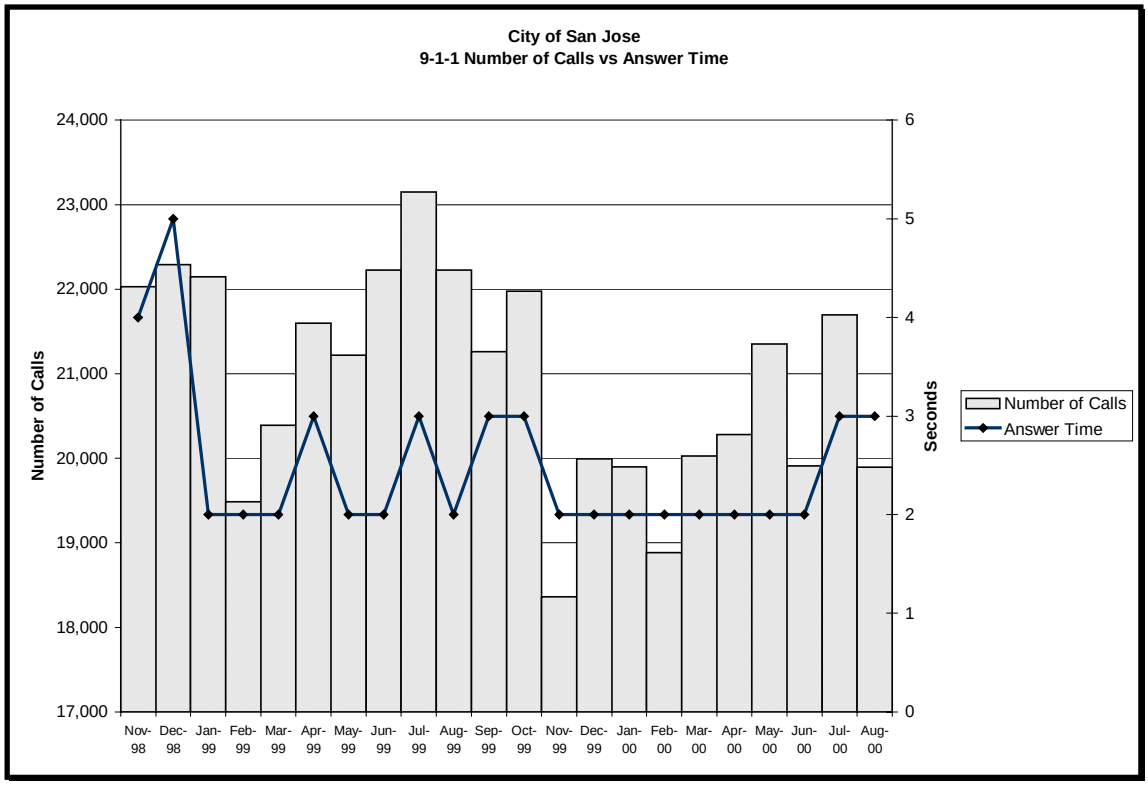


Figure 4

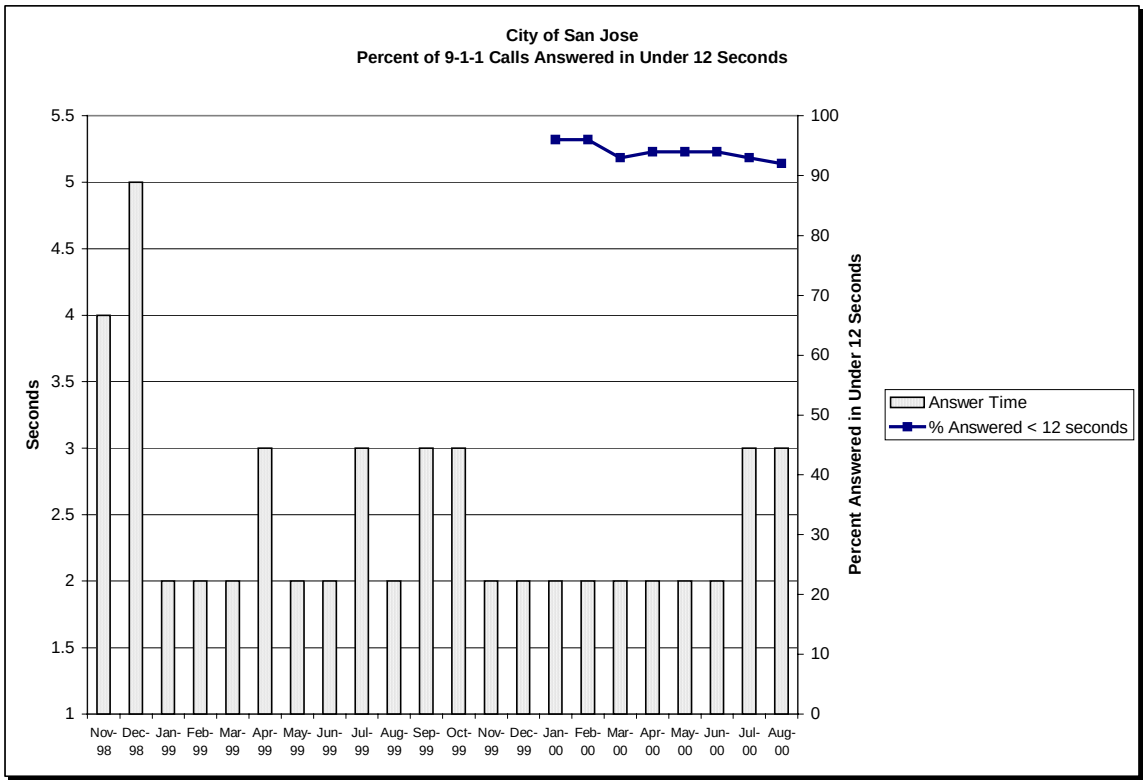


Figure 5

9-1-1 Abandoned Calls

Abandoned call data indicates that from November 1996 – November 1997, 9-1-1 callers in San Jose abandoned approximately 16 percent of their calls; from November 1997 – November 1998, 9-1-1 callers abandoned approximately 17 percent of their calls to 9-1-1. During the first eight months of 2000, 9-1-1 callers abandoned approximately four percent of their 9-1-1 calls.

The vertical bars in Figure 6 represent the number of 9-1-1 calls. The darker gray area at the foot of the bars for January 2000 to August 2000 show total number of abandoned calls for each of the first eight months of the year 2000. The line across the right side of the graph is the percent of total 9-1-1 calls represented by calls abandoned within the first 12 seconds or less. For the months when data is available, abandoned calls represent fewer than five percent of total calls. The line across the graph represents the average time a caller waits before abandoning the 9-1-1 telephone call. For the months shown in the graph, 78 percent or more of all calls were abandoned within 12 seconds of receipt and the longest time a caller waited before abandoning a call was 72 seconds.

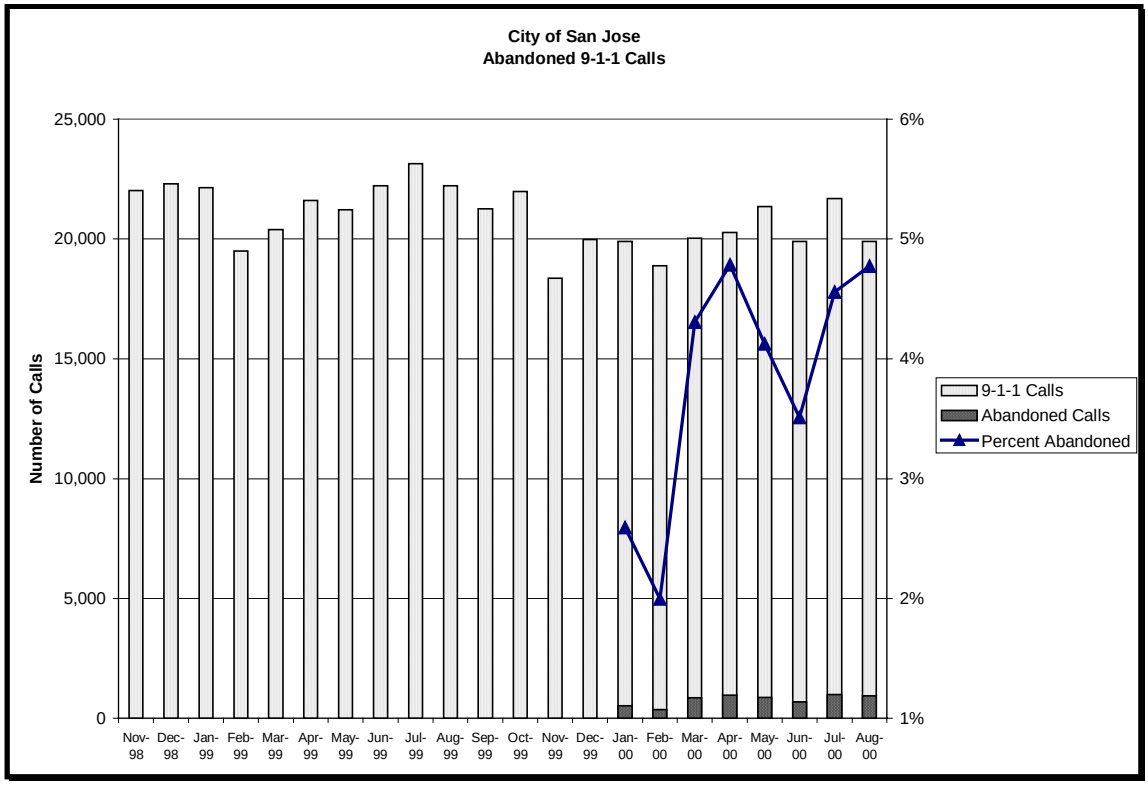


Figure 6

Non-emergency Calls to 9-1-1

San Jose reported the number of calls to 9-1-1 that were not emergencies for the years between 1996 and 1999. That information is summarized in the following chart.

Figure 7 charts the measured decline in calls placed to 9-1-1 that were not deemed to be emergency calls over a four year period beginning in 1995 and ending in 1999.

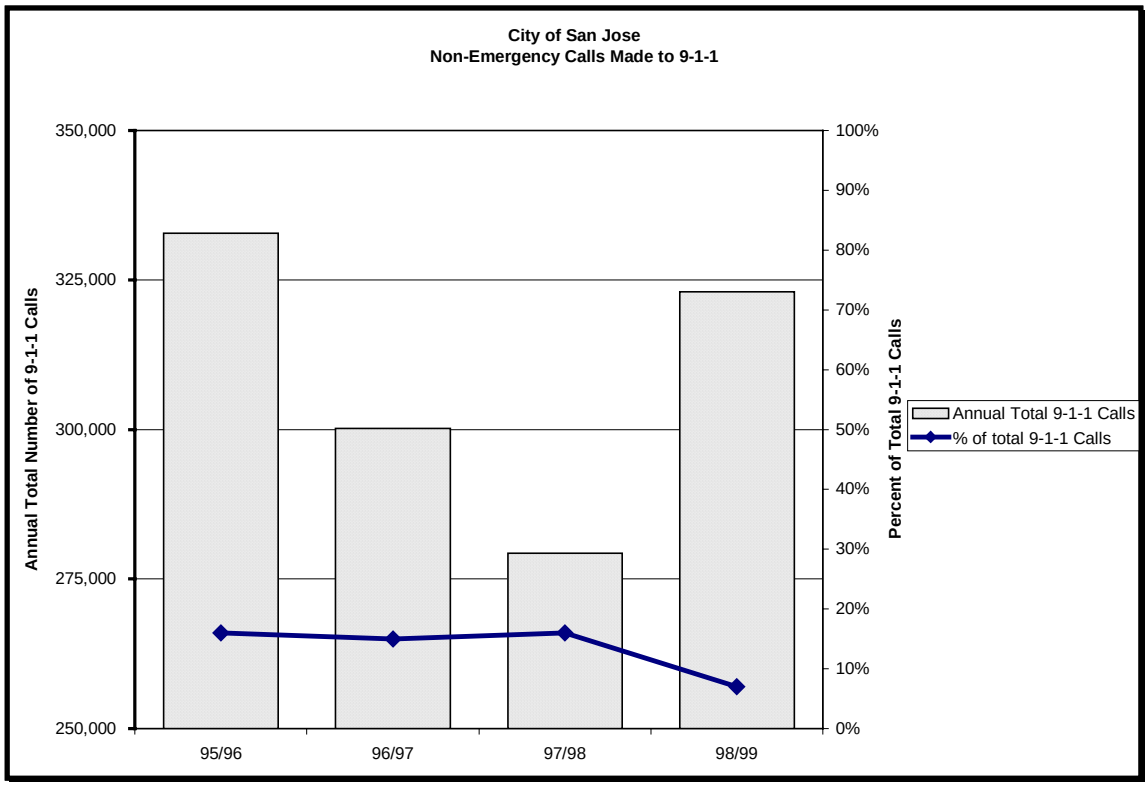


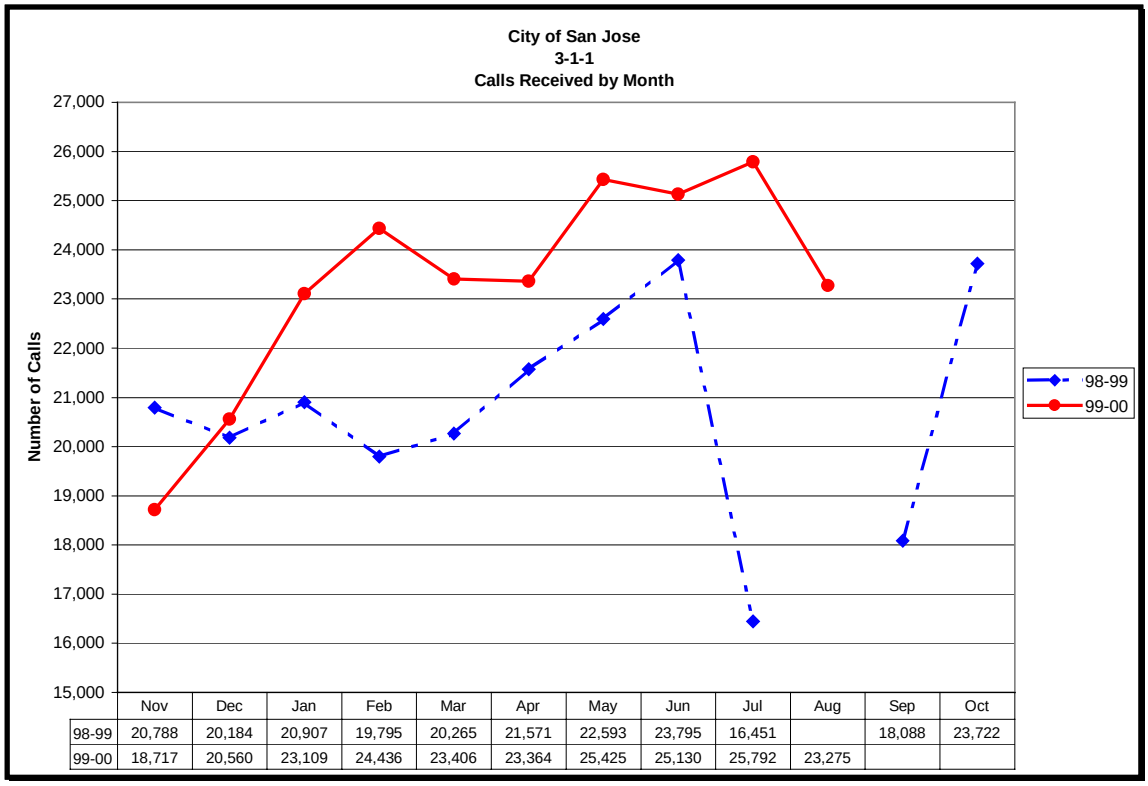
Figure 7

3-1-1 Calls

Beginning in November 1997, the City of San Jose made the 3-1-1 telephone number available to the public for non-emergency communication with the San Jose Police Department. Data presented below describe 3-1-1 telephone number usage. Figure 8 shows the number of calls made to 3-1-1 for each of two 12-month periods:

- November 1998 – October 1999
- November 1999 – October 2000

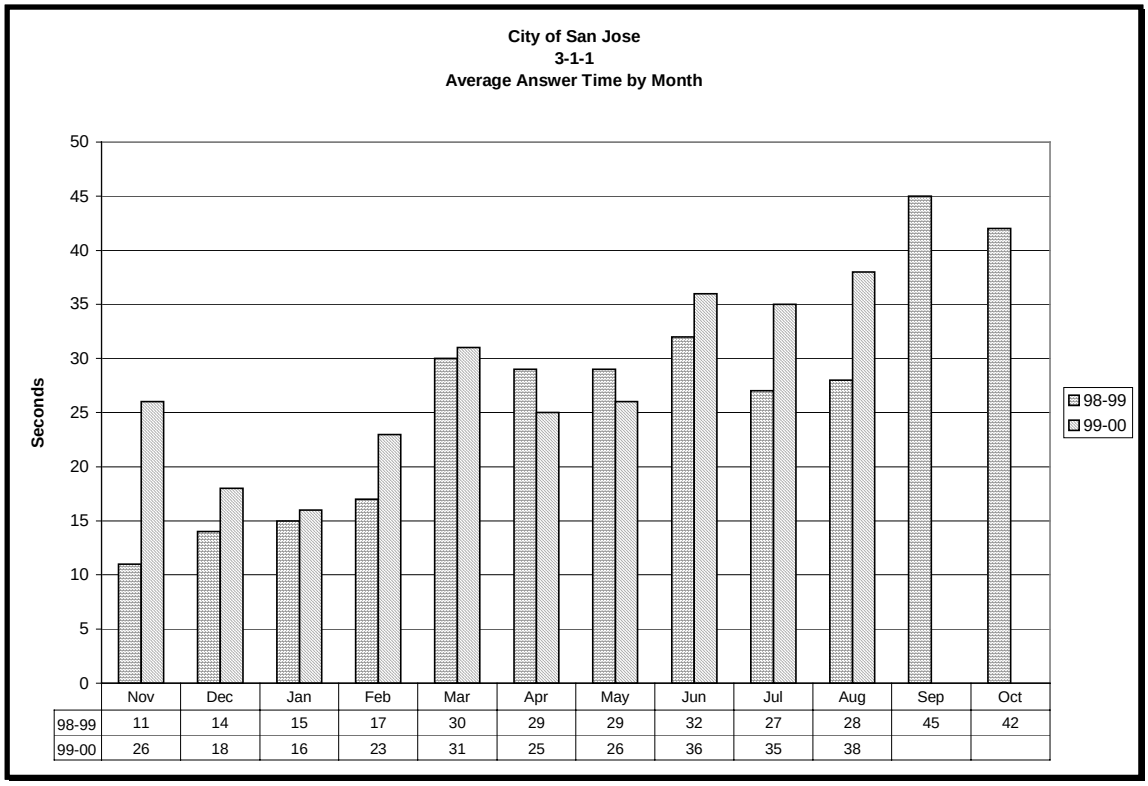
The chart below indicates an increase in the number of 3-1-1 telephone calls for each month in the second year compared with the corresponding month in the previous year suggesting that usage increased as the public's familiarity with the number grew.



	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
98-99	20,788	20,184	20,907	19,795	20,265	21,571	22,593	23,795	16,451		18,088	23,722
99-00	18,717	20,560	23,109	24,436	23,406	23,364	25,425	25,130	25,792	23,275		

Figure 8

Figure 9 presents the average answer time for 3-1-1 calls during the period when data is available. Like Figure 8, data is grouped by year to facilitate year over year comparisons.



	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
98-99	11	14	15	17	30	29	29	32	27	28	45	42
99-00	26	18	16	23	31	25	26	36	35	38		

Figure 9

Figure 10 compares the number of 3-1-1 calls received during the two-year period when data is available to the average monthly answer time.

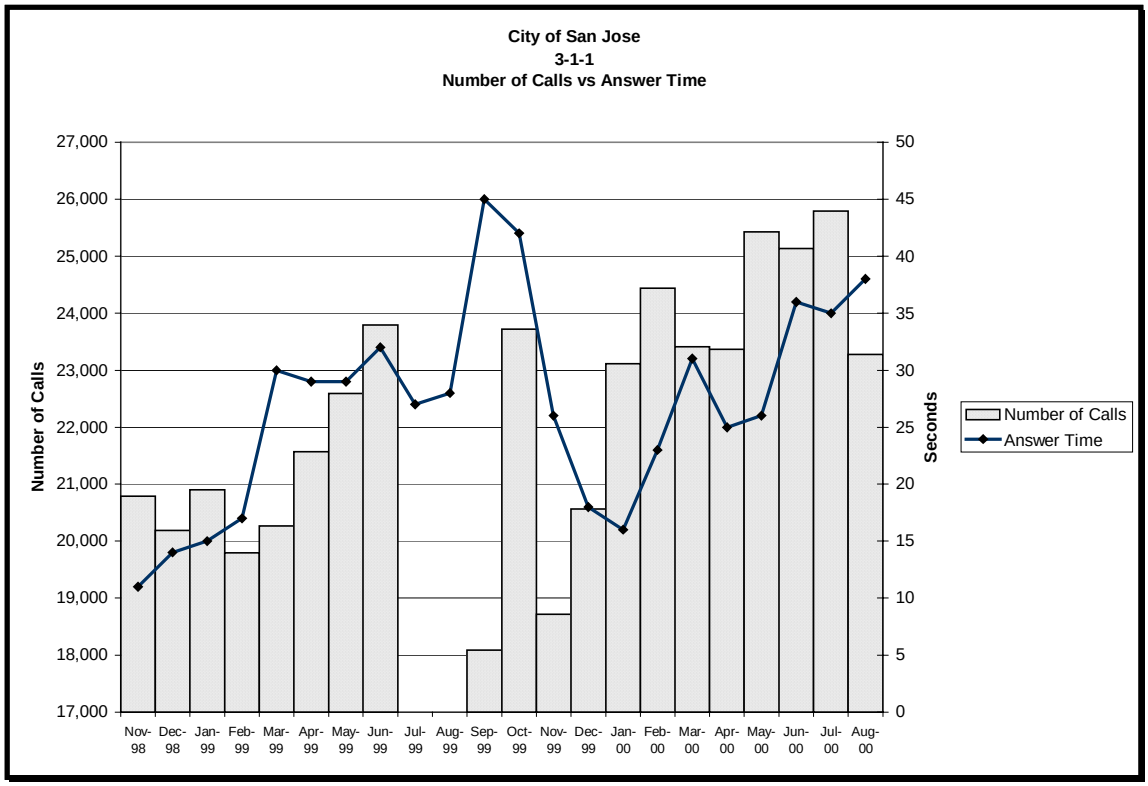


Figure 10

Figure 11 compares the number of 3-1-1 calls received during the same two-year period to the number or abandoned 3-1-1 telephone calls. The percent of total 3-1-1 calls represented by abandoned calls is shown as a black line across the bottom of the chart. In most months the recorded number of abandoned 3-1-1 calls represents a small fraction of the total calls.

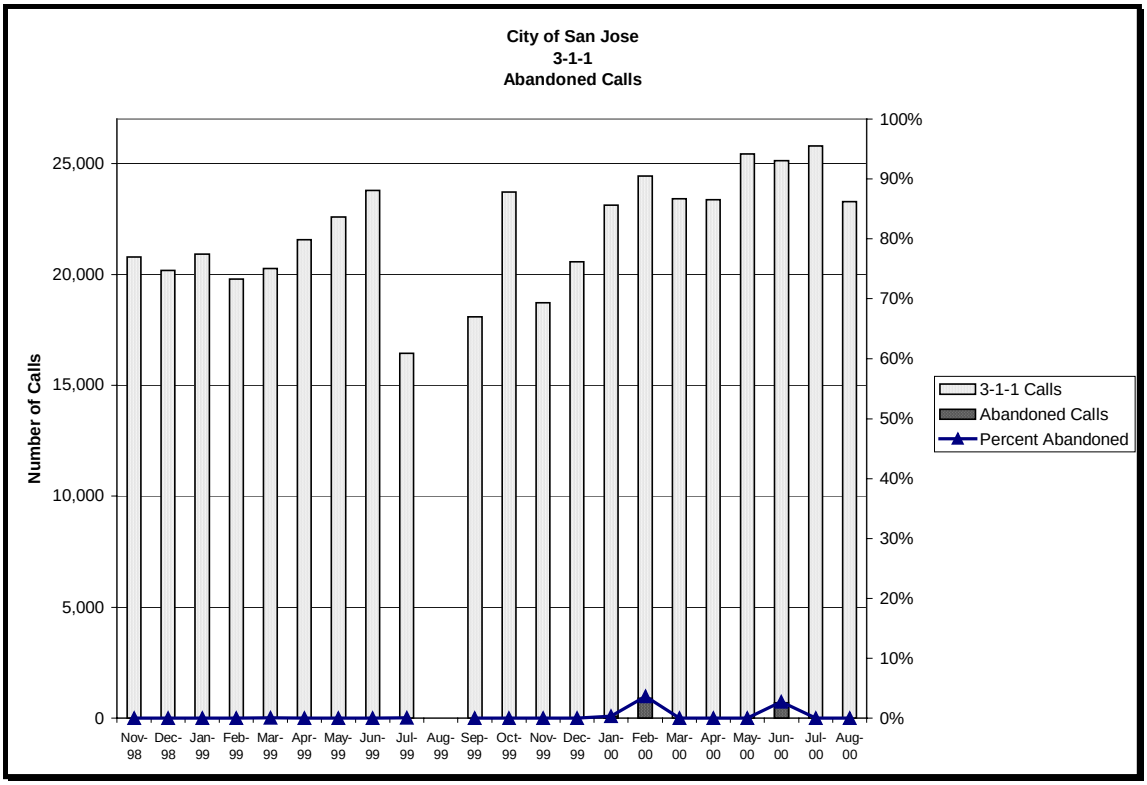


Figure 11

Combined Data For 3-1-1 and 7-digit Non-emergency Number Calls

Once a 3-1-1 telephone call reaches the San Jose Police Department Call Center, it is routed through the same auto attendant that processes 7-digit non-emergency number calls. (See Figure 1 and the related discussion in the Background section of this report). Call data for 3-1-1 and 7-digit non-emergency number calls presented in this section were combined when collected and reported by the equipment in the Call Center. It is not possible, consequently, to distinguish between 3-1-1 and 7-digit non-emergency calls during the period covered by this section.

Figure 12 compares the total number of 3-1-1 and 7-digit non-emergency telephone number calls received during the seven-month period in 1999 when data was available to the average monthly answer time for those months.

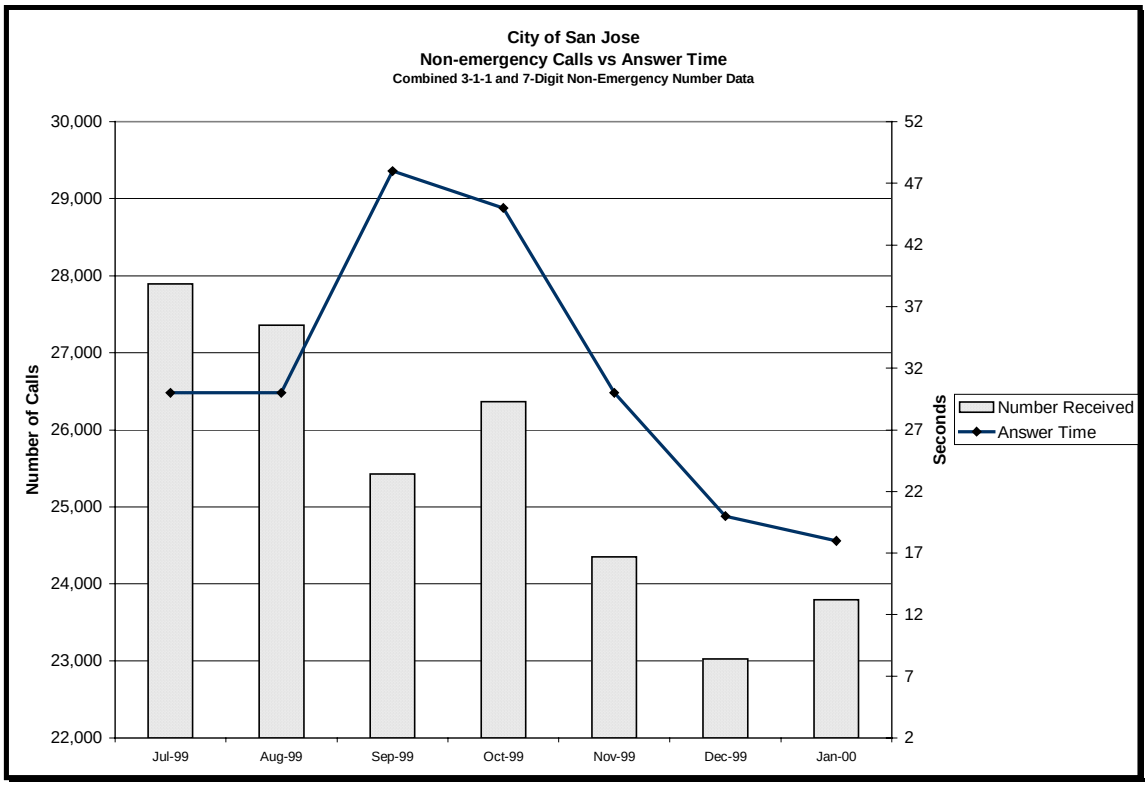


Figure 12

Figure 13 shows the monthly average answer time for those calls and indicates that between 60 and 80 percent of the non-emergency calls were abandoned in fewer than 12 seconds.

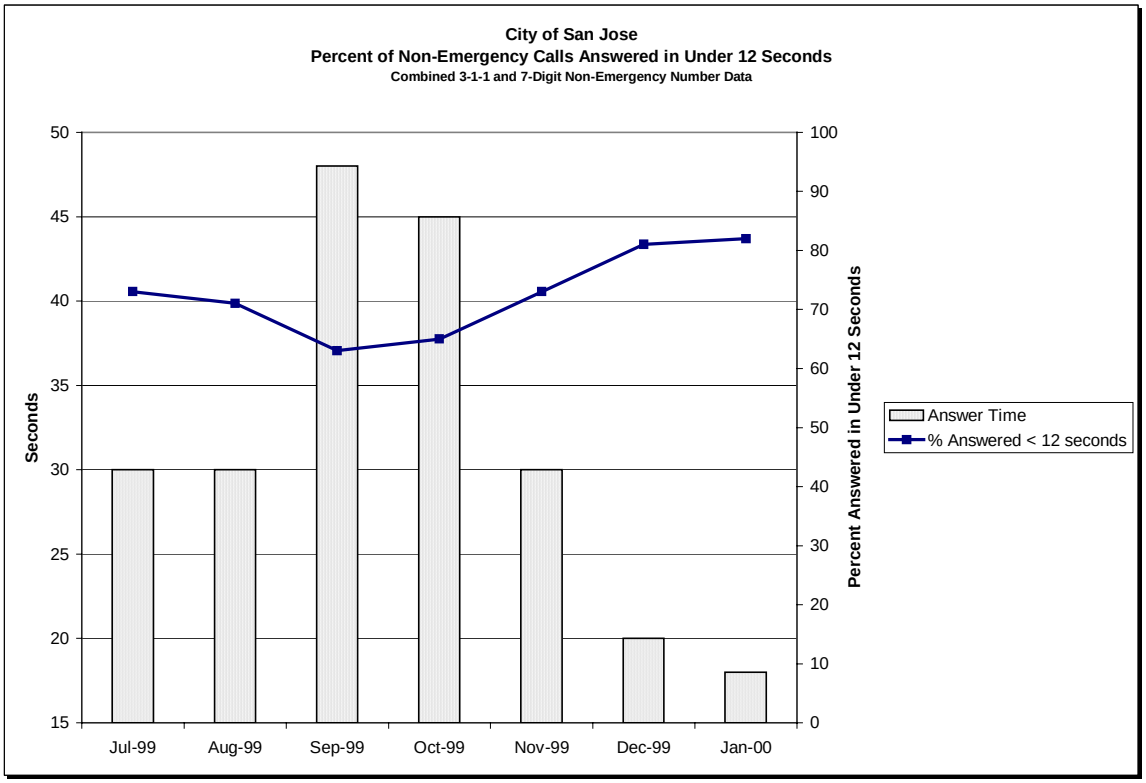


Figure 13

Figure 14 presents the call abandon rate for the seven months from July 1999 – January 2000. It shows the total number of calls made to the combined 3-1-1 and 7-digit non-emergency telephone number, the number of calls abandoned and the percent of the total represented by abandoned calls.

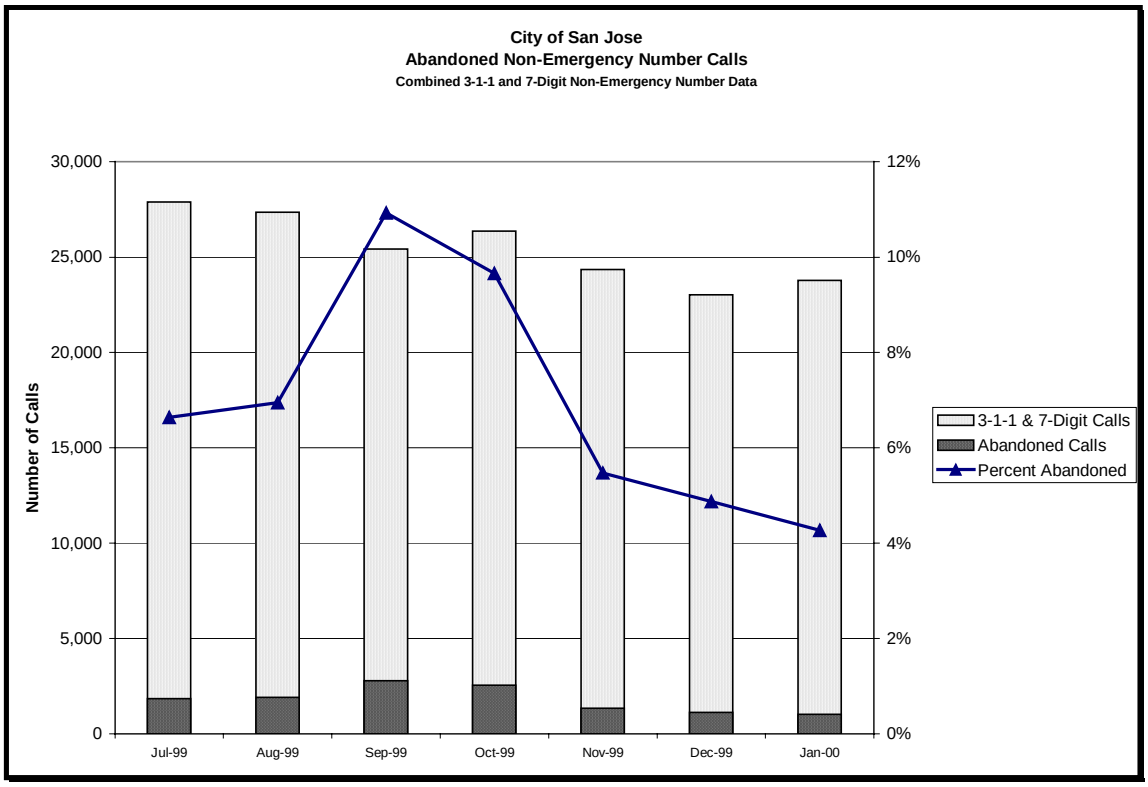


Figure 14

Figure 15 shows the monthly average answering time for the combined 3-1-1 and 7-digit non-emergency telephone number calls and indicates that between seven and 14 percent were abandoned in less than 12 seconds.

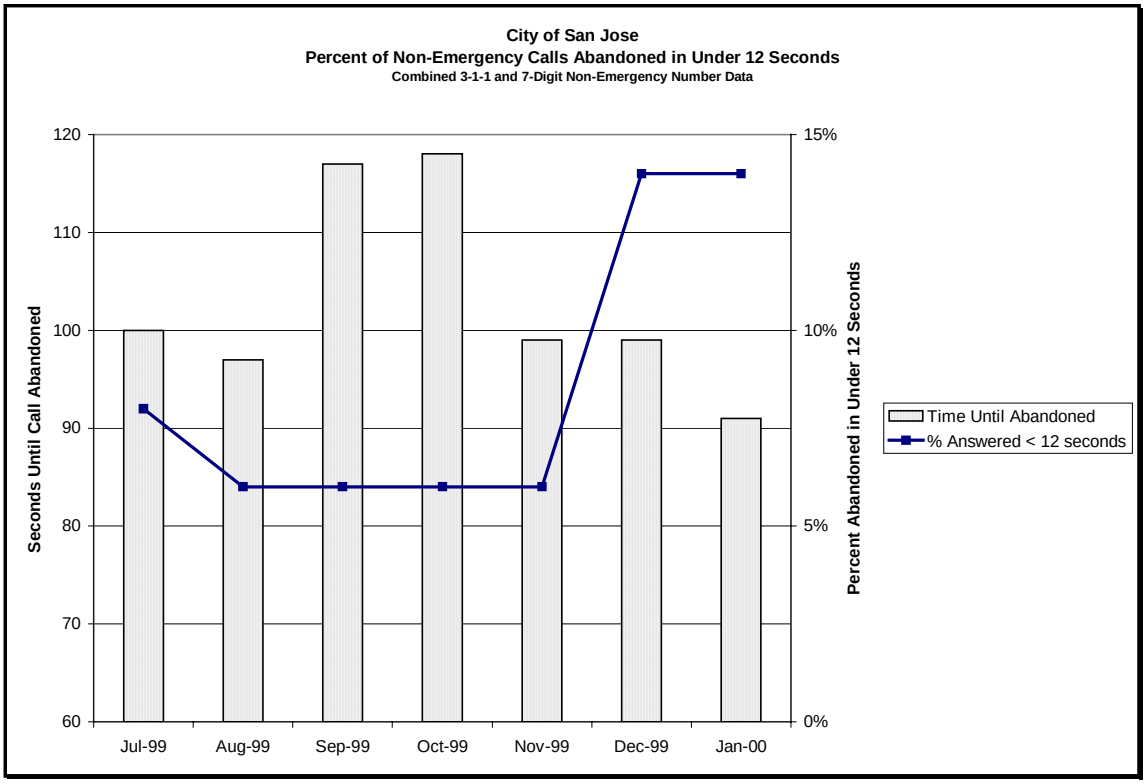


Figure 15

Additional Observations

Staffing

The San Jose Police Department employs trained staff that meets the city's requirements for emergency call takers. This staff may be assigned to answer both 9-1-1 and 3-1-1 calls. No additional staff was added to support the pilot.

Pilot Costs

The California 9-1-1 Program granted the City of San Jose $200,000 to conduct its pilot program. Eighty-nine percent of those funds were used to procure and install telephone equipment required to support 3-1-1 calling. The remaining 11 percent of the grant was expended for materials and activities in support of the city's public education campaign. In addition, the San Jose Police Department estimates staffing costs in

preparation for the pilot were approximately $38,000. Additionally, during 1999, the second year of the pilot, the City of San Jose spent $91,600 for ongoing equipment maintenance.

A breakdown of pilot expenditures is presented in Appendix B.

Projected Costs

In future years, the city anticipates spending $93,000 annually for equipment maintenance of their 3-1-1 systems and $5,000 for public education campaigns.

Public Response

The City of San Jose has indicated they see no evidence of public confusion between the 3-1-1 non-emergency telephone number and the 9-1-1 emergency telephone number.

Public response to the city's 3-1-1 service appears to be largely positive. Each month the city evaluates customer satisfaction by sending a survey to 40 callers. With an average response rate of 30 percent, the city has received positive ratings in the 80th to 99th percentile range from 95 percent of those responding between 1997 and 1999. Anecdotal evidence, based on comments from call takers indicates there have been few complaints about 3-1-1 and that those complaints received are typical of complaints received on the seven-digit non-emergency number.

In addition to receiving inquiries from as far away as the Australian Communication Authority, the city's 3-1-1 program has received attention from the popular press and local television stations.

San Diego Pilot

The DGS-TD selected the City of San Diego to participate in the non-emergency number pilot authorized by AB 1198. Unlike San Jose's pilot, which required network and Call Center equipment upgrades, San Diego's pilot measured the effect of enhanced marketing of an existing 7-digit non-emergency telephone number.

The pilot, originally scheduled to begin in June 1998, was postponed until the following June because of unrelated issues surrounding installation of a new 9-1-1 system.

Goals and Objectives

The City of San Diego sought to achieve goals similar to those expressed in AB 1198. San Diego hoped that a concerted public education campaign would result in improved 9-1-1 services as expressed by the following goals and objectives:

- Reduction in the number of calls made to 9-1-1;
- Reduction in 9-1-1 call answering time;
- Reduction in the number of abandoned 9-1-1 calls;
- Reduction in the number of non-emergency calls to 9-1-1; and
- Avoidance of public confusion.

Pilot Approach

The approach chosen by San Diego did not require technical or network changes. Rather it centered on well-publicized communication of an existing service.

Public Education

The city's public education campaign occurred in two phases. In the first phase, which began in August 1998, prior to the official pilot kick-off, San Diego focused on raising the visibility and public awareness of its 7-digit non-emergency number.

The second phase of the public education campaign began with the official kick-off of the pilot, which was called "Project 2000", on June 3, 1999. During this phase, the City of San Diego Communication Center developed and coordinated the campaign. In creating their marketing

materials and planning their campaign, the pilot's organizers considered the city's geography and its cultural and demographic diversity. Because Spanish is spoken by a significant portion of the city's population, both Spanish and English versions of many advertisements were produced. Because children were a special focus, marketing materials such as bookmarks, rulers and erasers were designed with their needs and interests in mind. Marketing techniques such as grocery receipts with preprinted messages targeted specific communities.

San Diego exercised care in the deployment of advertisements, ensuring that they were placed only within the city's boundaries where services provided by the 7-digit non-emergency number are available.

Resulting Data

Much of the data presented date from the start of the pilot, which officially began in June 1999; however, pre-pilot data are represented where available. In general, data are presented by month over a full-year period. To facilitate interpretation of trends, each year interval begins in June, the month that the pilot commenced and ends the following May.

9-1-1 Calls

Figure 16 shows the total number of 9-1-1 calls received by the City of San Diego for each month beginning in June 1995. The totals represent the total number of 9-1-1 calls including calls that were abandoned before they were answered by a call taker. During the five and one-half years covered by Figure 16, the California Department of Finance estimates that the population of San Diego increased from 1,197,676 to 1,245,500, an increase of approximately 48,000 people.

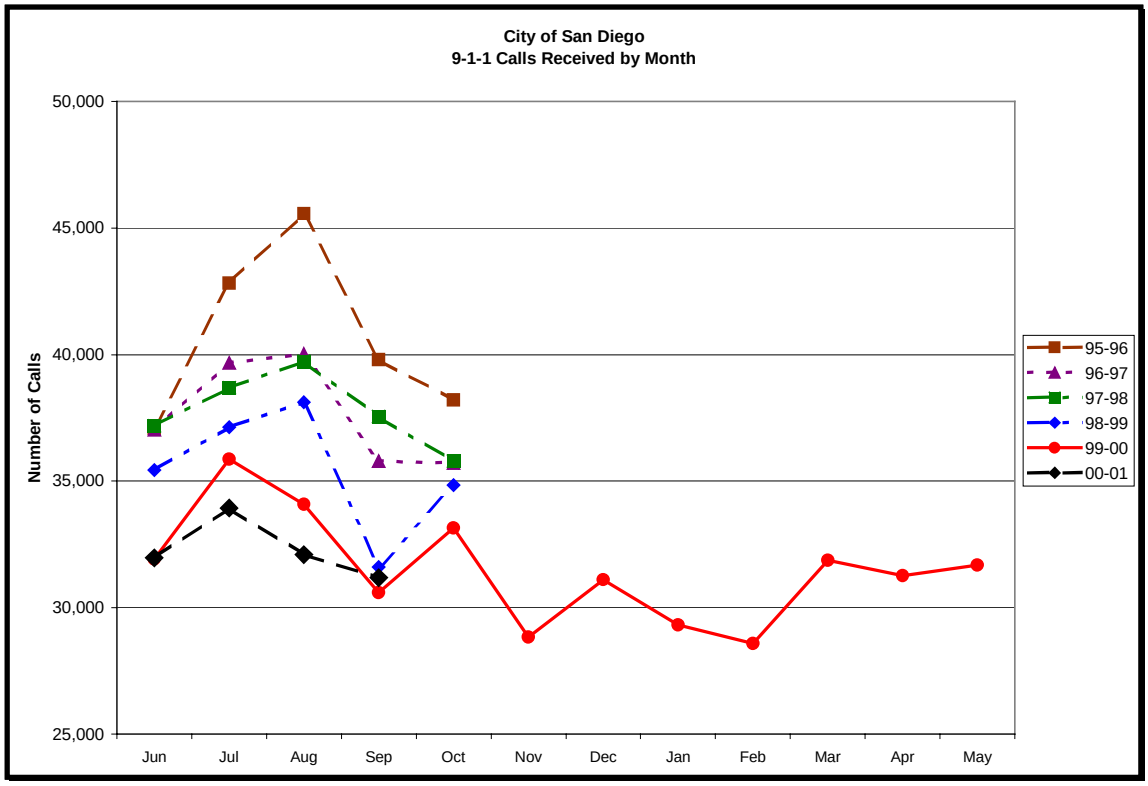
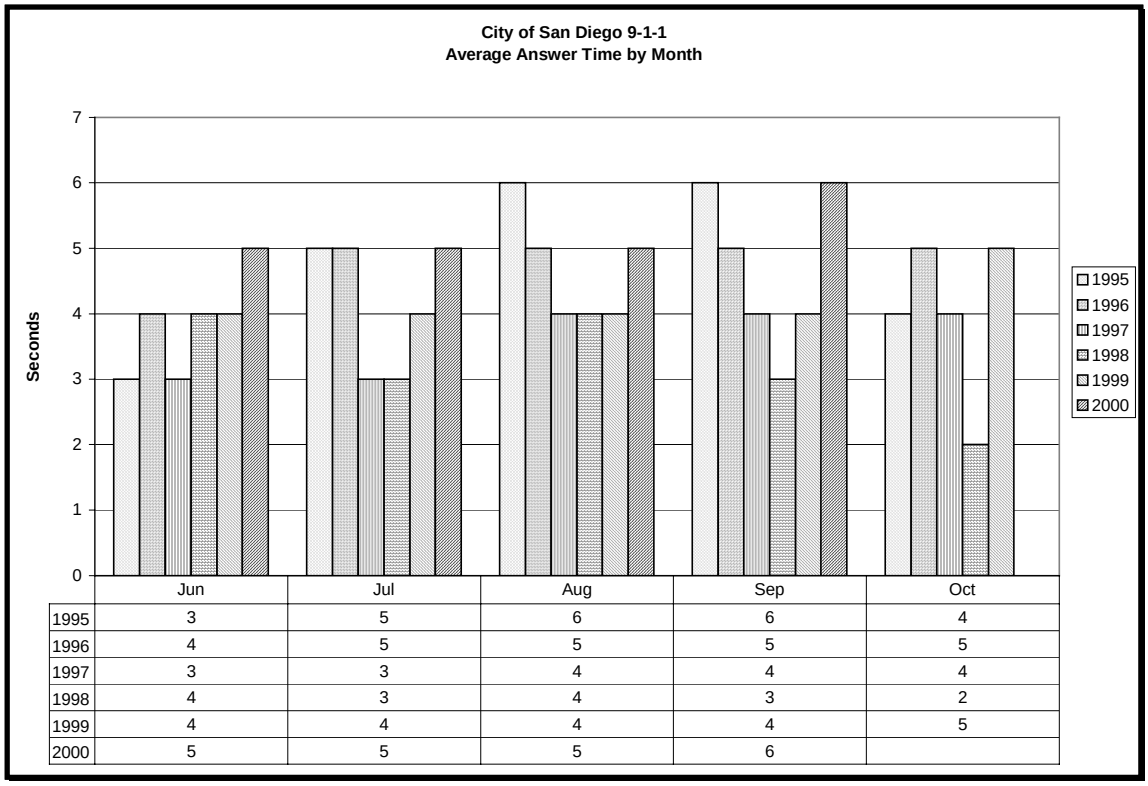


Figure 16

9-1-1 Call Answer Time

Figure 17 shows monthly average time to answer a 9-1-1 call. The answer time represents the time span from the time the call is received by the Call Center controller until a call taker picks up the line.



	Jun	Jul	Aug	Sep	Oct
1995	3	5	6	6	4
1996	4	5	5	5	5
1997	3	3	4	4	4
1998	4	3	4	3	2
1999	4	4	4	4	5
2000	5	5	5	6	

Figure 17

Figure 18 and Figure 19 show relationships between the number of 9-1-1 calls received and the average answering time.

Figure 18 compares the total number of 9-1-1 calls received each month that data are available with the average answering time for that month.

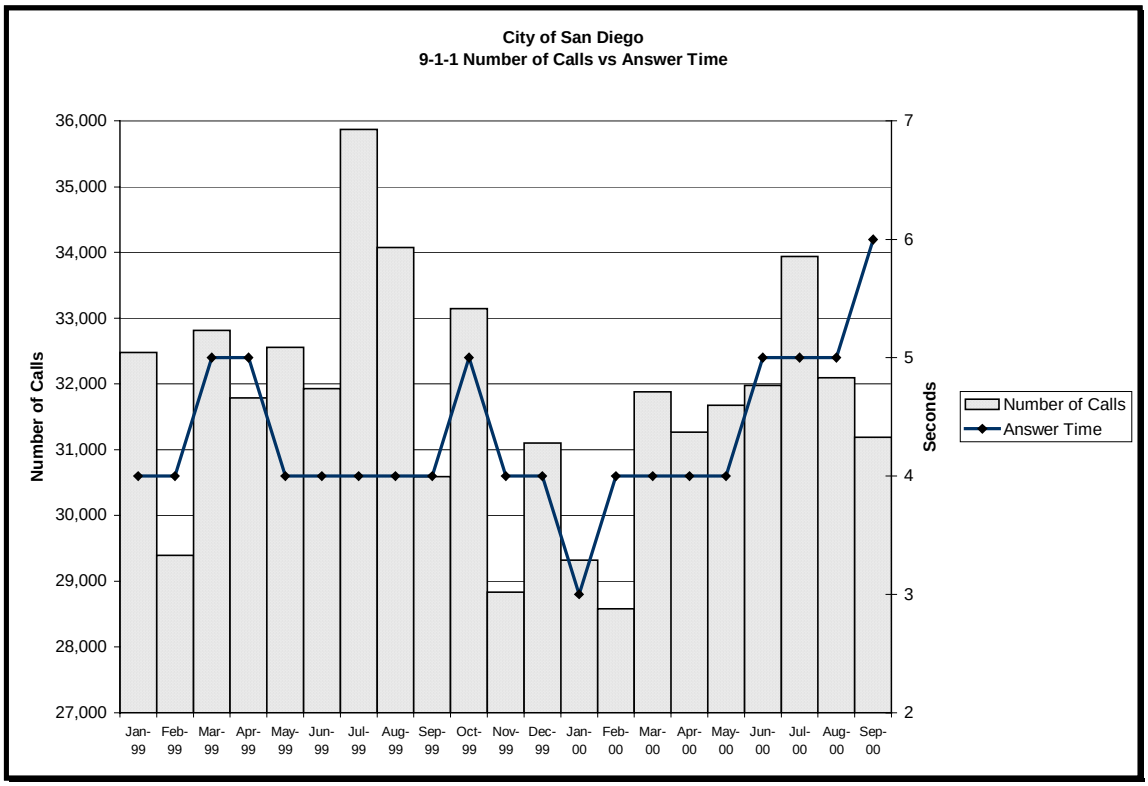


Figure 18

Figure 19 indicates that, for months when data are available, between 80 and 95 percent of 9-1-1 calls were answered within six seconds of being received.

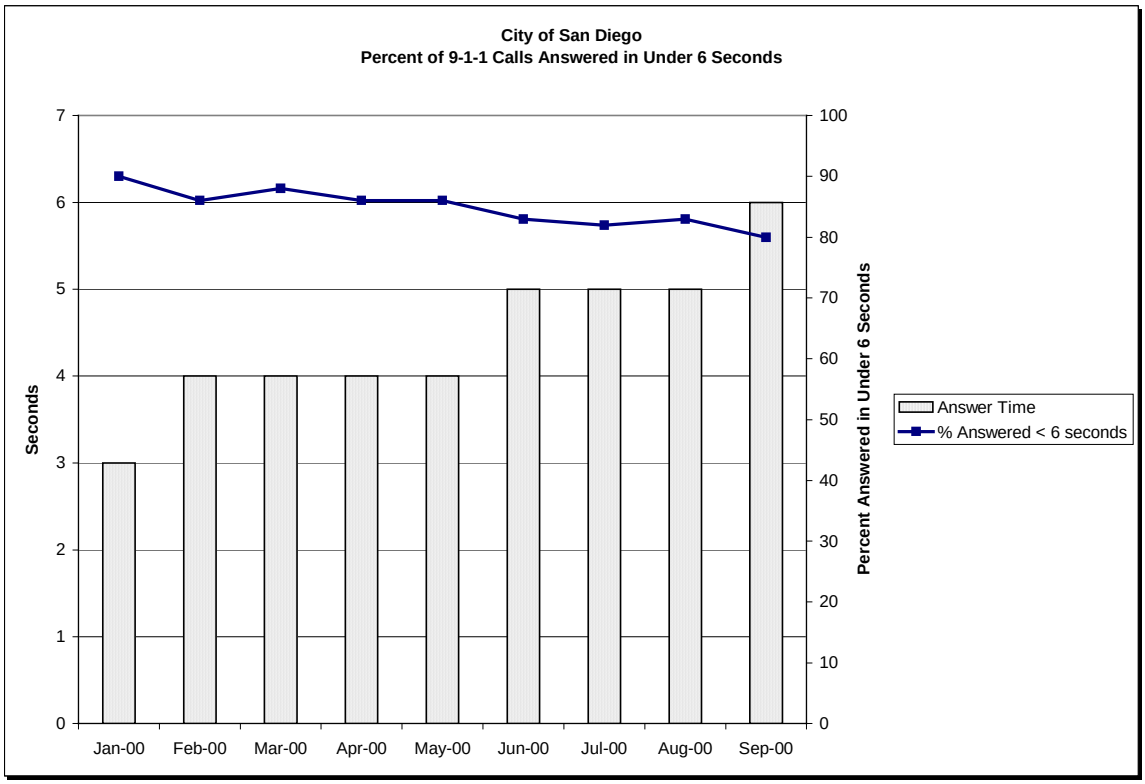


Figure 19

9-1-1 Abandoned Calls

Abandoned calls are calls that are disconnected during the time span after the call has been received by the call center's controller but before the call has been answered by a call taker. Abandoned calls do not include calls that receive a busy signal. These latter calls cannot be counted by call center equipment.

During 1998, the pre-pilot year, San Diego changed its call management system. The older call management system counted abandoned calls differently from the new system, and therefore, comparisons between pre-pilot and post-pilot call abandonment rates may lead to inconsistent conclusions.

The vertical bars in Figure 20 represent the total number of 9-1-1 calls. The darker gray areas at the foot of the bars show total number of abandoned calls. The line across the top of the graph is the percent of total 9-1-1 calls represented by abandoned calls. For the months when data is available, abandoned calls represent fewer than ten percent of total calls.

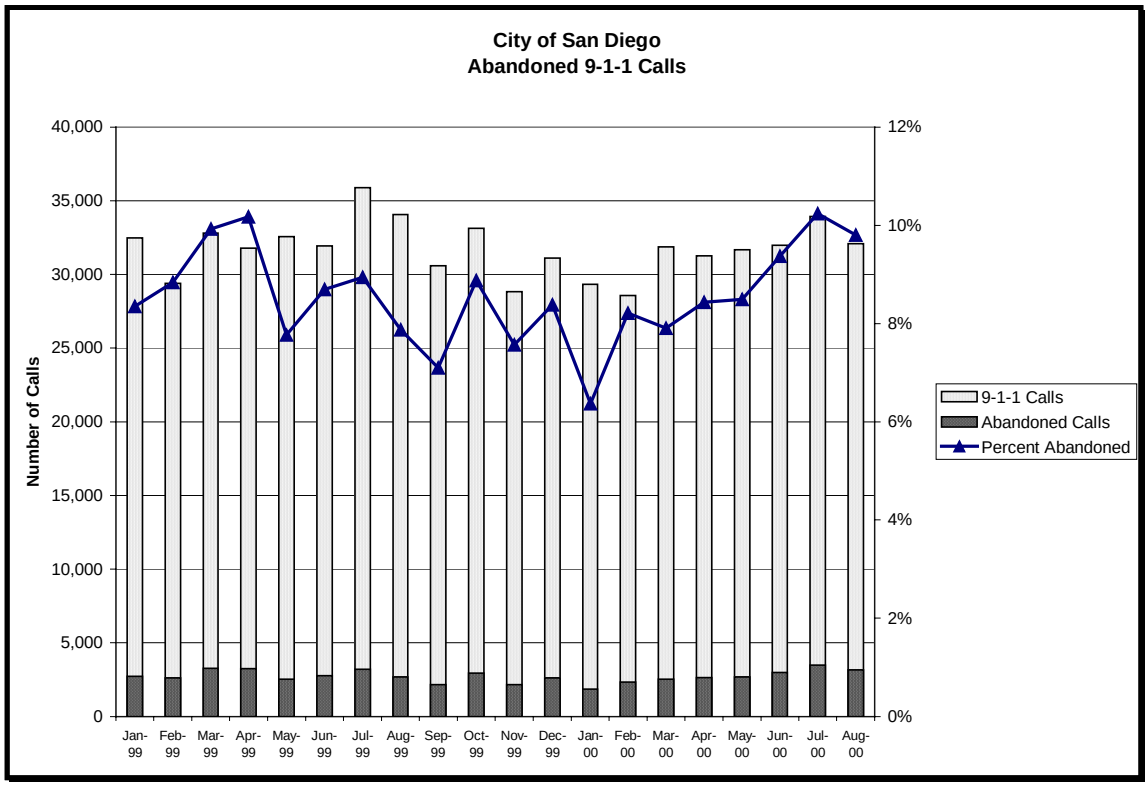


Figure 20

Figure 21 presents another aspect of 9-1-1 call abandonment. The gray bars show the average time a caller waits before abandoning a 9-1-1 call. The dark line across the top of the graph shows the average number of calls abandoned during the first 20 seconds. For the months shown in the graph, 85 percent or more of all calls were abandoned within 20 seconds of receipt and the longest time a caller waited before abandoning a call was 87 seconds.

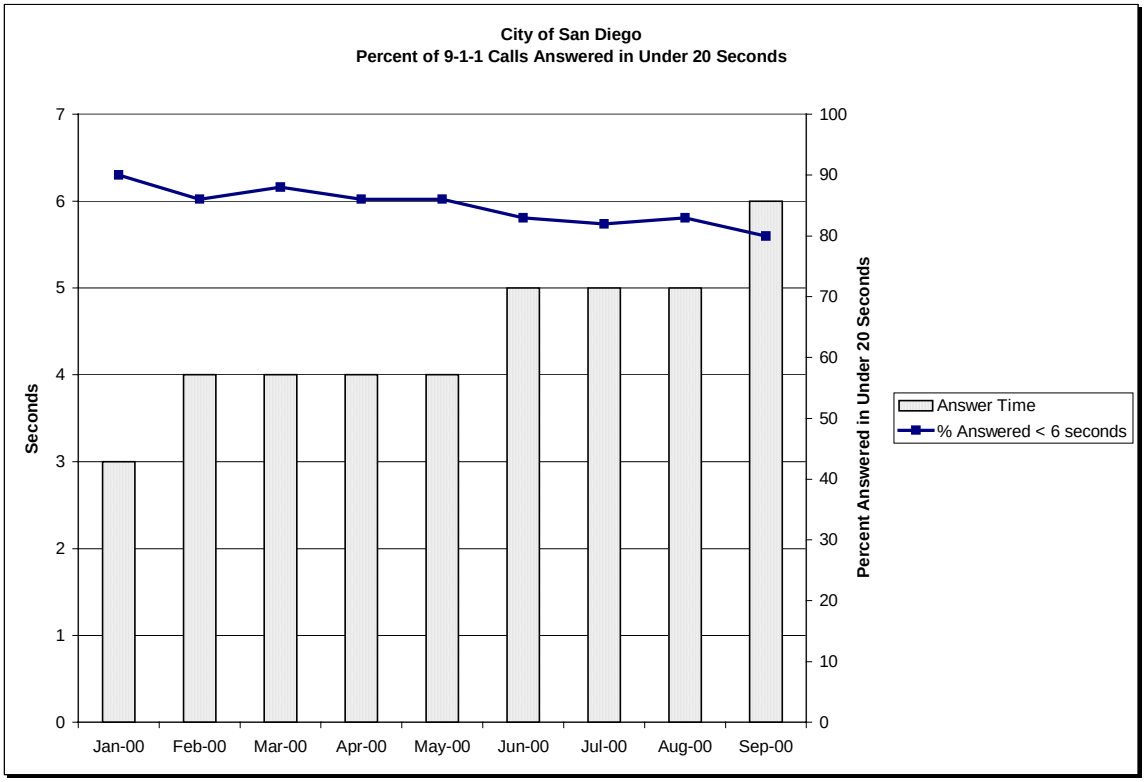


Figure 21

Non-emergency Calls to 9-1-1

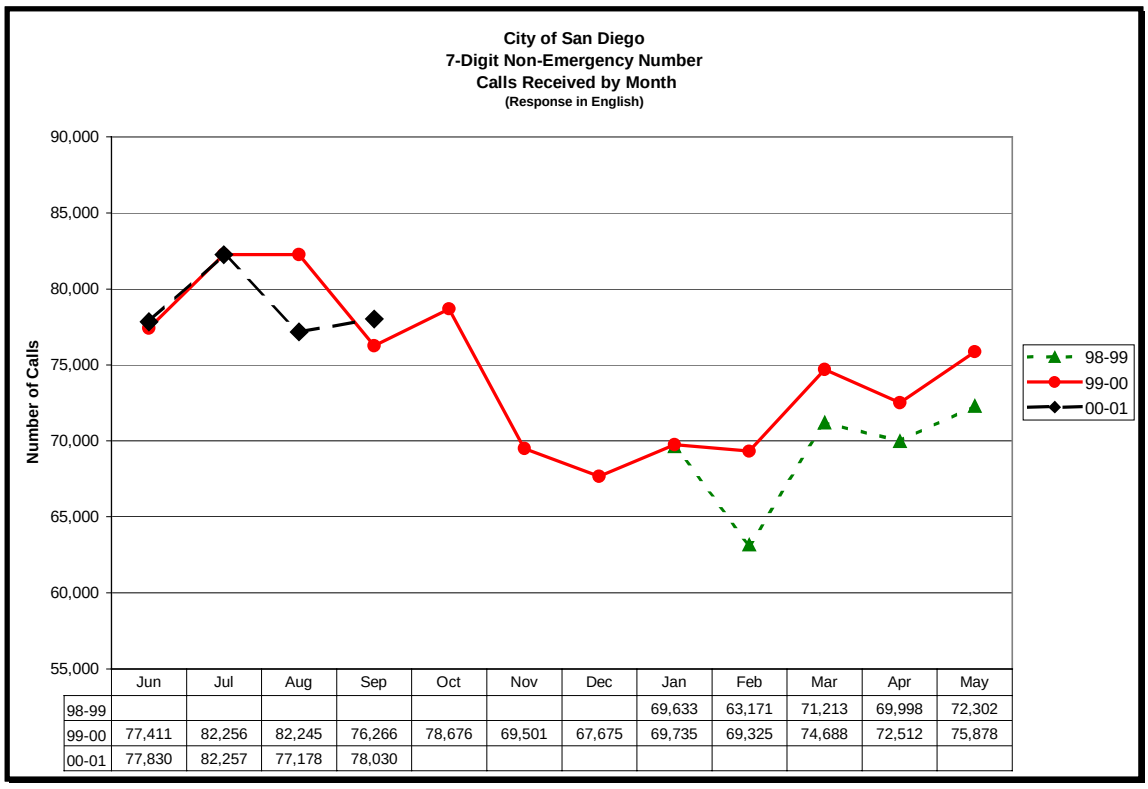
In 1998, San Diego identified 58,526 calls to 9-1-1 as non-emergency calls. In 1999, that number decreased to 35,763.

7-digit Non-emergency Calls

The City of San Diego provides the public a 7-digit non-emergency telephone number for contacting law enforcement when the reason for contact is not an emergency. Callers to this number may choose to receive assistance in either English or Spanish and call statistics are gathered according to the language chosen. Consequently, the data presented in this report is presented in two sections corresponding to the language used.

7-digit Non-emergency Calls in English

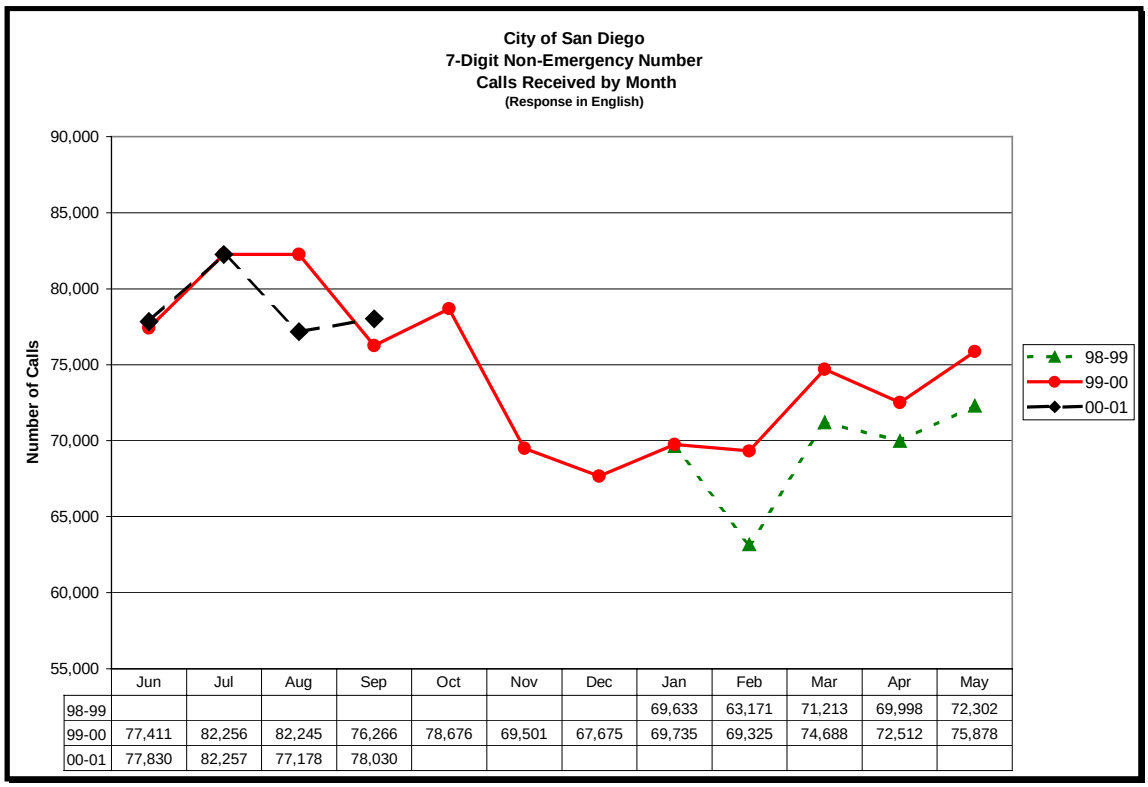
Figure 22 shows the total 7-digit non-emergency calls in English made between January 1999 and September 2000. The dotted line represents non-emergency calls received in the five-month period from January 1999 through May 1999, prior to commencement of the pilot; the solid line represents calls received the first full year of the pilot, June 1999 through May 2000; and the dashed line represents calls received from June through September 2000.



	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
98-99								69,633	63,171	71,213	69,998	72,302
99-00	77,411	82,256	82,245	76,266	78,676	69,501	67,675	69,735	69,325	74,688	72,512	75,878
00-01	77,830	82,257	77,178	78,030								

Figure 22

Figure 23 shows the number of 7-digit non-emergency English language calls for the five months, January – May 1999, prior to the beginning of the pilot (dotted line), the first full year of the pilot, June 1999 – May 2000, (solid line) and for June – September 2000 (dashed line).



	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
98-99								69,633	63,171	71,213	69,998	72,302
99-00	77,411	82,256	82,245	76,266	78,676	69,501	67,675	69,735	69,325	74,688	72,512	75,878
00-01	77,830	82,257	77,178	78,030								

Figure 23

Figure 24 compares the monthly average answer time for English non-emergency 7-digit calls made during 1998, 1999, and the first nine months of 2000 to the total number of calls received each month.

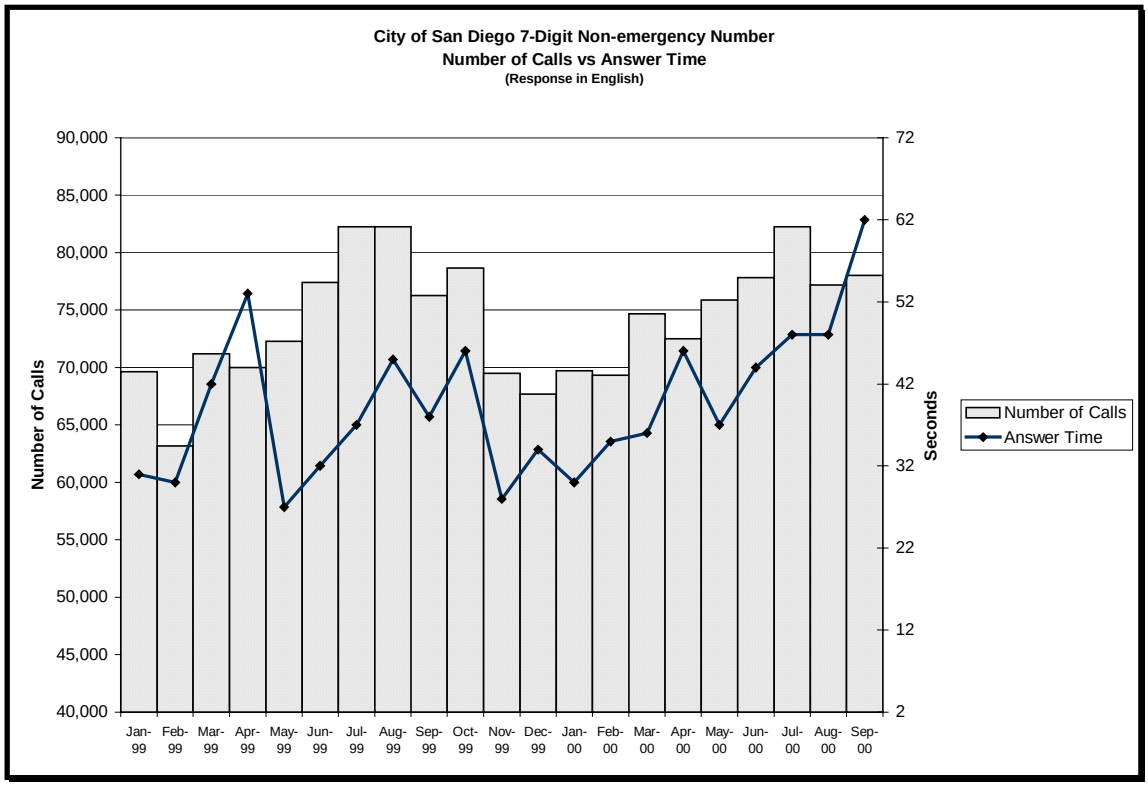
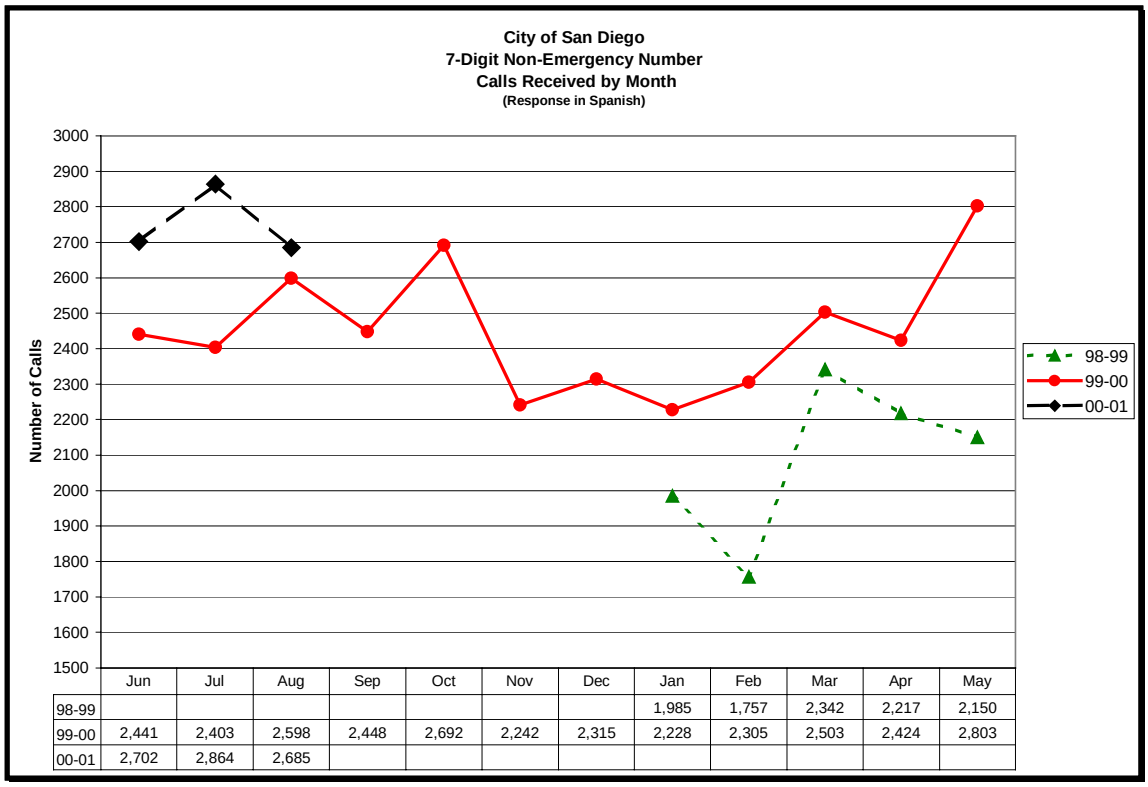


Figure 24

7-digit Non-emergency Calls in Spanish

Fewer calls are made to the non-emergency telephone number in Spanish than in English. Spanish calls represent approximately three to four percent of the total number of calls.

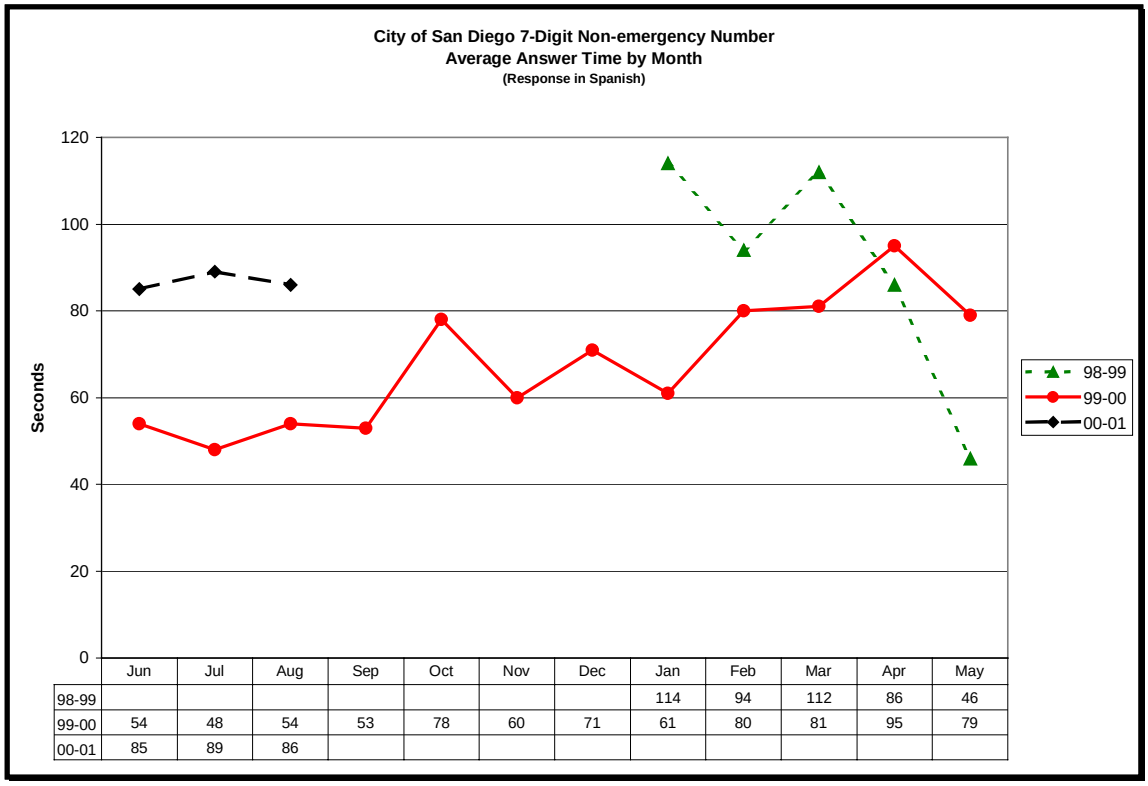
Figure 25 shows the total 7-digit non-emergency calls in Spanish made between January 1999 and September 2000. The dotted line represents non-emergency calls received in the five months prior to commencement of the pilot; the solid line represents calls received during the first full year of the pilot, from June 1999 through May 2000; and the dashed line represents calls received from June through August 2000.



	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
98-99								1,985	1,757	2,342	2,217	2,150
99-00	2,441	2,403	2,598	2,448	2,692	2,242	2,315	2,228	2,305	2,503	2,424	2,803
00-01	2,702	2,864	2,685									

Figure 25

Figure 26 shows the call answer times for the five months prior to the beginning of the pilot (dotted line), the first full year of the pilot (solid line) and for June – September 2000 (dashed line).



	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
98-99								114	94	112	86	46
99-00	54	48	54	53	78	60	71	61	80	81	95	79
00-01	85	89	86									

Figure 26

Figure 27 compares the monthly average answer time for Spanish non-emergency 7-digit calls made during 1998, 1999, and the first nine months of 2000 to the number of calls received each month.

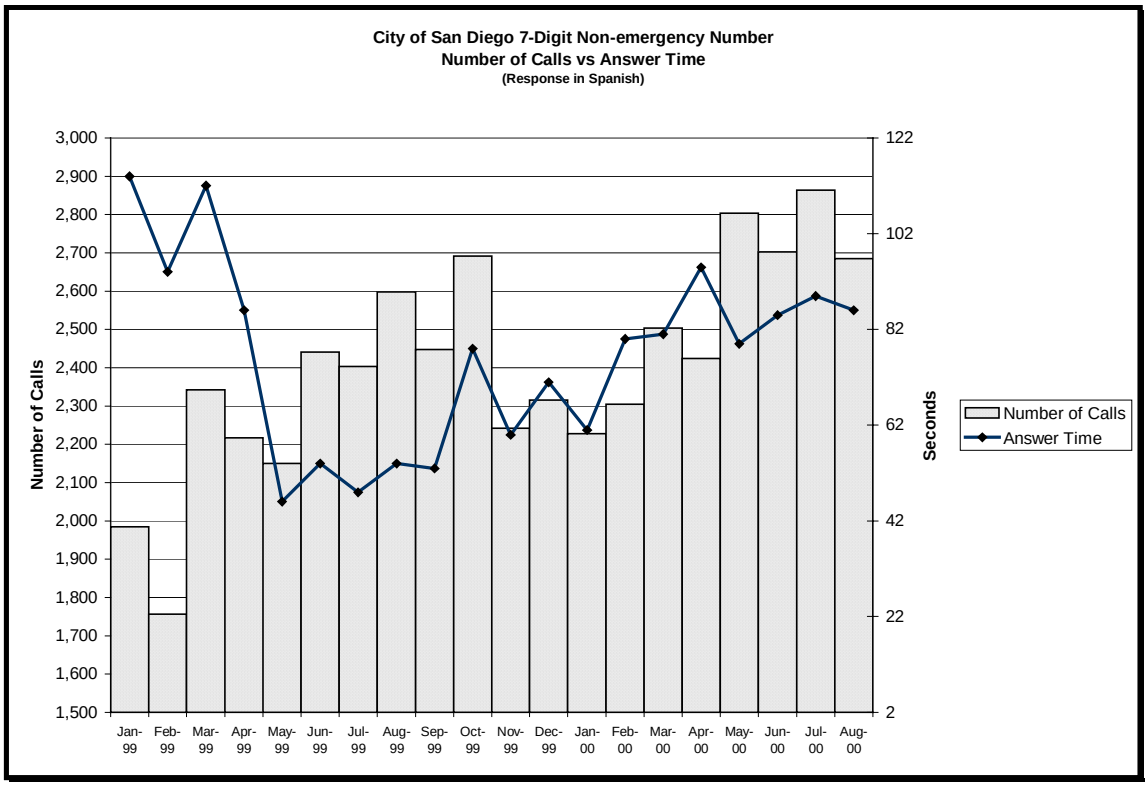


Figure 27

Additional Observations

Staffing

The San Diego Call Center employs trained staff that meet the city's requirements for emergency call takers. This staff may be assigned to answer both 9-1-1 calls and calls placed on the 7-digit non-emergency number. No additional staff was added to support the pilot.

Pilot Costs

The California 9-1-1 Program granted $275,000 to the City of San Diego to conduct its pilot program. As of November 1999, the city had expended $154,380 of that grant. All expenditures were incurred to advertise and promote the city's public awareness campaign. A breakdown of expenditures is presented in Appendix B.

Public Response

While quantitative measures of public confusion are not available, the City of San Diego Police Department has indicated that public reaction to Project 2000 has been positive and that they see no evidence of public confusion between the 7-digit non-emergency telephone number and the 9-1-1 emergency telephone number.

Lessons Learned

Although the non-emergency number pilots described in this document did not yield solid conclusions, the experience gained by the California 9-1-1 Program will provide valuable guidance for similar pilots in the future.

Methodology

In enacting AB 1198, the Legislature hoped that the pilots would demonstrate the efficacy of each city's approach as quantified by a specific set of metrics:

1. Reducing "911" calls;
2. Improving answer time for "911" calls;
3. Reducing unanswered "911" calls; and
4. Reducing non-emergency "911" calls.

The Legislature's underlying assumption was that non-emergency calls divert the time and attention of 9-1-1 call takers from callers reporting true emergencies. The pilots were experiments to test the hypothesis that implementation of either 3-1-1 or the 7-digit non-emergency number would result in measurable improvement to 9-1-1 service.

Successful testing of this hypothesis rested on the ability of the pilots to capture data satisfying the following criteria:

- Measurements had to accurately depict 9-1-1 service;
- Data points had to be sufficient to be statistically significant;
- Comparison between "before" and "after" had to be possible; and
- Only a limited number of variables could affect the outcome.

Measurements Must Accurately Depict 9-1-1 Service

The Legislature chose measurements that accurately depict the condition of 9-1-1 service. The first three measurements specified by AB 1198 – the total number of 9-1-1 calls, the average answering time and the number of unanswered or abandoned calls – are common metrics for evaluating 9-1-1 services. The second measurement – call answering time – is a standard measure of the health of the 9-1-1 system. All three measurements are routinely captured by PSAPs; they are tracked by the California 9-1-1 Program , the California National Emergency Number

Association (CalNENA), and many other agencies and organizations. These measurements also share an additional characteristic: they are generally captured and reported automatically by the call management equipment housed in the PSAPs.

The fourth measurement specified in AB 1198 – number of non-emergency calls made to the 9-1-1 telephone number – is clearly a relevant metric because a reduction in the number of non-emergency calls equates to a reduction in the total number of calls to 9-1-1, thereby reducing the burden on 9-1-1 call takers. Because this measurement cannot be captured automatically but must be manually tallied, it is more difficult to capture consistently.

Data Points Must Be Sufficient To Be Statistically Significant

In both of the pilot cities, call management equipment captured 9-1-1 call data for every 9-1-1 call received. Although those data may be summarized and reported in intervals of one half-hour, one day, one week and one month, only monthly averages were retained. Consequently, analysis is limited to only a relatively few data points, generally fewer than required for statistical significance. In addition, the number of non-emergency calls to the 9-1-1 telephone number was not captured, summarized or reported for intervals that correspond to the other metrics. Therefore, the most important measure of the impact of each pilot cannot be correlated with other metrics.

Comparison Between "Before" And "After" Must Be Possible

Three factors combined to make it impossible to satisfy this criterion:

1. Historical data prior to the inception of the pilots was not available in sufficient detail.

   Prior to the enactment of AB 1198, the pilot cities had collected and retained 9-1-1 call statistics that met their own management information reporting needs. They had not retained the data in sufficient detail to be useful in creating a model of pre-pilot 9-1-1 service for comparison with post-pilot 9-1-1 service.

2. There was not sufficient time between enactment of AB 1198 and the mandated start of the pilots to collect historical data.

   AB 1198 became law in October 1997 and required the pilots to begin no later than July 1998. Because 9-1-1 call volumes follow a seasonal pattern, it is necessary to capture at least one year's data in order to create an historical baseline and multi-year data are needed for trend analysis.

3. Each of the pilot cities had scheduled enhancements to their 9-1-1 systems that precluded realistic comparison of their call statistics over a continuous interval beginning with the years preceding the

launch of their pilots and continuing into the era when the non-emergency number programs were well established.

Because it is not possible to create a “before” picture in sufficient detail, it is not possible to determine the role that non-emergency calls played in 9-1-1 response in the pilot cities.

Only A Limited Number Of Variables May Affect The Outcome

The factors affecting 9-1-1 response in a large metropolitan area are complex: changes in population, demographics, crime rate, the economy and the technology supporting 9-1-1 response all play a role. During the time studied in this report, many changes took place in the pilot cities. In addition, changes in equipment and procedures took place within the cities’ call centers. Because evaluation of these factors was not included in the pilot, it was not possible to determine the relative importance of non-emergency calls made to the 9-1-1 telephone number. Nor was it possible to calibrate the impact of other factors on 9-1-1 response.

Conclusion

The scope of the study was limited in that the study period was short and, due to equipment issues at one site, the time frames were not coincident throughout the study for San Jose and San Diego. The results derived from the study reflect these limitations with the following conclusions being drawn:

1. It is not adequate to use only the data gathered in these two pilots as a foundation for decisions that apply to the state as a whole.
2. The viability of the 3-1-1 system is not in question. Although, statistically, the data did not bear this out during the pilot period, intuitively we know that a three-digit number is easier to remember than a seven-digit number. However, unlike the 9-1-1 environment where lives and property are in immediate jeopardy, the 3-1-1 concept lends itself to a myriad of implementation options. Local agencies already have the authority to implement a 3-1-1 system if it meets the needs of their particular jurisdiction. Some cities and counties are in the process of doing just that. No other state has implemented a uniform state-administered 3-1-1 program as yet. Undoubtedly, other states face the same questions of how best to fund such a program and how to balance the diverse system needs of individual jurisdictions.

   Both cities were satisfied with the results of their respective implementation and plan to continue the use of a non-emergency 7-digit number in San Diego and 3-1-1 in San Jose.

   Examples of these implementation options can be seen around California and across the nation. The City of San Jose chose to

use 3-1-1 for non-emergency law enforcement only. By contrast, the City of Los Angeles is preparing to implement a 3-1-1 system that will, in essence, serve as a customer information and referral service for any city government function.

Recommendation

The data collected from the Non-emergency Number Pilot Project was inconclusive. Until more conclusive information is presented, the state should not invest in a non-emergency telephone number program to be implemented statewide.

It is recommended that other factors be considered and evaluated before launching a statewide implementation of 3-1-1. Some of these factors are outlined below.

The genesis of the 3-1-1 concept lay in the assumption that 9-1-1 call takers are over-burdened with non-emergency calls. While this assumption can be proven with regard to inadvertent wireless 9-1-1 calls in California, this is not the crux of the problem in the wireline environment. The biggest challenges lie in the following areas:

1. The ability to recruit and retain qualified call takers and dispatchers is one of the most critical challenges facing PSAPs today. Legitimate 9-1-1 calls via wireless telephones have increased tremendously commensurate with the number of wireless telephones in service. Unlike the wireline environment, wireless 9-1-1 calls are routed through the PSTN hence no ANI or ALI information is delivered to the PSAP. Increased call processing time is the result, making the 9-1-1 call taker or dispatcher unavailable to accept another waiting 9-1-1 call for a longer period of time.

   Implementing a 3-1-1 system would not necessarily alleviate this situation. San Jose uses the same call takers to answer 9-1-1 calls and 3-1-1 calls. This means that the 3-1-1 calls are merely diverted to a lower priority queue, but the same pool of people who answer 9-1-1 calls also answer 3-1-1 calls. When the waiting time for 3-1-1 calls becomes lengthy, often the caller hangs up and dials 9-1-1 because the call will then become a high priority and be answered promptly. This scenario does little to alleviate non-emergency call traffic on 9-1-1 lines.

2. Issues surrounding the efficiency of emergency call response involve many factors. Employing 3-1-1 is but one alternative that may alleviate some inefficiency but is not the complete answer.

3. Local agencies are in the best position to determine what specific factors are impacting their operation and how best to resolve them. In many areas of the state non-emergency call traffic over 9-1-1 lines is

not a problem. Similarly, in other localities, agencies prefer to use an existing 7-digit non-emergency number in lieu of introducing a new number to the public. Since both 3-1-1 and 7-digit non-emergency numbers showed success in their respective application, why not allow local jurisdictions to decide how best to meet the needs of their public?

4. The 9-1-1 Program Office is developing a plan to deploy enhanced wireless 9-1-1 (Wireless E9-1-1) throughout California, which will include location technology to quickly locate a person placing a call from a wireless telephone. Unfortunately, due to FCC requirements, enhanced wireless 9-1-1 will not be fully deployed for a few years. However, once deployed, Wireless E9-1-1 will shorten the amount of time required to process a wireless 9-1-1 call and alleviate much of the burden shouldered by call takers in their effort to speed help to those in need.

Appendix A

This appendix contains AB1198, Legislation directing the DGS-TD to conduct the non-emergency number study and produce this report.

BILL NUMBER: AB 1198 CHAPTERED
BILL TEXT

CHAPTER 887
FILED WITH SECRETARY OF STATE OCTOBER 12, 1997
APPROVED BY GOVERNOR OCTOBER 11, 1997
PASSED THE ASSEMBLY SEPTEMBER 11, 1998
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AMENDED IN SENATE JUNE 30, 1997
AMENDED IN SENATE JUNE 23, 1997
AMENDED IN ASSEMBLY MAY 21, 1997
AMENDED IN ASSEMBLY APRIL 28, 1997

INTRODUCED BY Assembly Member Hertzberg
(Coauthors: Assembly Members Baca and Honda)

FEBRUARY 28, 1997

An act to add Article 6.5 (commencing with Section 53125) to Chapter 1 of Part 1 of Division 2 of Title 5 of the Government Code, and to amend Section 41136 of the Revenue and Taxation Code, relating to local agencies, making an appropriation therefor, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

AB 1198, Hertzberg. "311" Nonemergency Telephone System Pilot Project.

(1) Existing law, the Warren-911-Emergency Assistance Act, establishes the number "911" as the primary emergency telephone number for use in the state and imposes a surcharge on intrastate telephone communication service to pay for the administration of the "911" emergency telephone number system and related costs.

This bill would make legislative findings and declarations relating to the abuse and misuse of the number "911" for nonemergency calls, and the need to implement procedures to limit the use of the "911" system to true emergencies, and to provide citizens with an alternative phone system for nonemergencies. The bill would state the purpose of the pilot program, and would require the Division of Telecommunications of the Department of General Services to conduct a pilot program including the use of a "311" telephone number as a means of reaching public safety agencies for nonemergency ssistance and improved marketing of the use of and access to existing nonemergency telephone numbers for nonemergency assistance, to be implemented as soon as practicable, but in no event later than July

1, 1998. The bill would authorize the division to select one or more appropriate locations for the pilot program, in consultation with the local government entities affected. It would further require the division to assess the effectiveness of the pilot program based on specified factors and would require the division to submit a report to the Governor and the Legislature on the results of the pilot program by July 1, 1999.

(2) Existing law establishes the State Emergency Telephone Number Account in the General Fund, pursuant to which funds derived from a surcharge imposed on amounts paid by every person in the state for intrastate telephone communication service may be appropriated by the Legislature for specified purposes.

This bill would authorize payment of costs associated with the pilot program from the State Emergency Telephone Number Account, and would appropriate the sum of $200,000 from the account to the Division of Telecommunications of the Department of General Services for implementation of the pilot program.

(3) The bill would declare that the provisions relating to the establishment of the pilot program shall remain in effect until January 1, 2000.

(4) This bill would declare that it is to take effect immediately as an urgency statute.

Appropriation: yes.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Article 6.5 (commencing with Section 53125) is added to Chapter 1 of Part 1 of Division 2 of Title 5 of the Government Code, to read:

Article 6.5. Local Nonemergency Telephone System Pilot Program

53125. (a) The Legislature finds and declares that the efficient and effective use of the "911" emergency telephone system has recently been compromised by an increase in nonemergency calls to that number. The Legislature further finds and declares that these nonemergency calls can burden the "911" system, diverting "911" call-takers and radio dispatchers from true emergencies. For these reasons, the Legislature finds and declares that a need exists to implement procedures to limit the use of the "911" system to true emergencies, and to provide citizens with an alternative phone system for nonemergencies. The purpose of the pilot program is to assess whether the establishment of a "311" nonemergency telephone system will substantially decrease the use of the "911" system for nonemergencies.

(b) The Division of Telecommunications of the Department of General Services shall conduct a pilot program to evaluate alternative means to reduce the use of the "911" telephone number for nonemergency assistance. The pilot program shall consist of the following two approaches:

(1) The use of a "311" telephone number as a means of reaching local public safety agencies for nonemergency assistance.

(2) Improved marketing of the use of and access to existing nonemergency telephone numbers for nonemergency assistance, which may include, but shall not be limited to providing decals for each individual telephone within the study area, which include the nonemergency telephone numbers of public safety entities serving the area in which the telephone is located.

(c) The pilot program shall be implemented as soon as the Division of Telecommunications determines that it is practicable to do so, but in no event later than July 1, 1998. The division may select one or more locations to implement the pilot program, and shall, to the extent possible, select areas with comparable characteristics to serve as a study area for one of the two approaches specified in subdivision (b) to permit reasonable comparisons of the two alternative

approaches, and is encouraged to share the costs of the pilot program with the local agency or agencies. Participation in the pilot program shall be on a voluntary basis on the part of the local agency or agencies. The division shall assess the effectiveness of each of the two approaches specified in subdivision (b) by evaluating the following factors:

(1) The overall impact of each of the two approaches specified in subdivision (b) on the "911" system.

(2) The costs associated with the establishment, operation, and maintenance of either approach specified in subdivision (b).

(3) The difficulties associated with appropriately routing emergency calls placed to the "311" telephone number or the existing nonemergency telephone number.

(4) The staffing requirements for "311" operators as compared to "911" dispatchers.

(5) Whether the use of either the "311" number or the existing nonemergency telephone number has caused confusion to the public, particularly with respect to the mistaken use of either "311" or the existing nonemergency telephone number instead of "911" by children.

(d) The pilot program shall be deemed to have demonstrated the success of either approach specified in subdivision (b) if the assessment required by subdivision (c) finds that the "311" telephone number or the existing nonemergency telephone number does not create confusion with the "911" program and finds that either approach specified in subdivision (b) has contributed to:

(1) Reducing "911" calls.

(2) Improving answer time for "911" calls.

(3) Reducing unanswered "911" calls.

(4) Reducing nonemergency "911" calls.

(e) The division shall submit a report to the Governor and the Legislature on the results of the pilot program and its assessment and comparison of each approach specified in subdivision (b) by July 1, 1999.

(f) This section shall remain in effect until January 1, 2000.

SEC. 2. Section 41136 of the Revenue and Taxation Code is amended to read:

41136. Funds in the State Emergency Telephone Number Account shall, when appropriated by the Legislature, be spent solely for the following purposes:

(a) To pay refunds authorized by this part.

(b) To pay the State Board of Equalization for the cost of the administration of this part.

(c) To pay the Department of General Services for its costs in administration of the "911" emergency telephone number system.

(d) To pay bills submitted to the Department of General Services by service suppliers or communications equipment companies for the installation and ongoing expenses for the following communications services supplied local agencies in connection with the "911" emergency phone number system:

(1) A basic system.

(2) A basic system with telephone central office identification.

(3) A system employing automatic call routing.

(4) Approved incremental costs.

(e) To pay claims of local agencies for approved incremental costs, not previously compensated for by another governmental agency.

(f) To pay claims of local agencies for incremental costs and amounts, not previously compensated for by another governmental agency, incurred prior to the effective date of this part, for the installation and ongoing expenses for the following communication services supplied in connection with the "911" emergency phone number system:

(1) A basic system.
(2) A basic system with telephone central office identification.
(3) A system employing automatic call routing.
(4) Approved incremental costs. Incremental costs shall not be allowed unless the costs are concurred in by the Communications Division.

(g) To pay the Telecommunications Division of the Department of General Services for the costs associated with the pilot program authorized by Article 6.5 (commencing with Section 53125) of Chapter 1 of Part 1 of Division 2 of Title 5 of the Government Code.

SEC. 3. The sum of two hundred thousand dollars ($200,000) is hereby appropriated from the State Emergency Telephone Number Account to the Division of Telecommunications of the Department of General Services for the purposes of implementing Article 6.5 (commencing with Section 53125) of Chapter 1 of Part 1 of Division 2 of Title 5 of the Government Code, as added by Section 1 of this act.

SEC. 4. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting the necessity are:

Due to the burden placed on the "911" emergency telephone system by nonemergency calls and the potential threat to the public safety posed by that burden, it is necessary that this act take effect immediately in order to determine as soon as possible whether the establishment of a "311" nonemergency telephone system will substantially decrease the use of the "911" system for nonemergencies.

Appendix B

This appendix contains a summary of the costs incurred by the cities of San Diego and San Jose in the course of conducting their pilots.

City of San Jose Costs

Telephone equipment and maintenance required for transmittal and routing of 3-1-1 calls correctly account for the majority of these expenditures, $177,638, including the following:

- Call Manager ports;
- Call Manager menu changes and other programming;
- Automatic Call Distributor trunk card;
- Light and holding displays; and
- Selective Routing for 510,000 main stations.

In addition, the city spent $22,280 on materials and activities for its public education campaign. These expenditures resulted from the following:

- Public service announcements;
- Radio and news media coverage;
- Web site;
- Theater and transit posters, slides and advertisements;
- Flyers, bumper stickers and refrigerator magnets; and
- Special awareness events.

In addition to out-of-pocket expenses, the San Jose Police Department estimates its pilot related staffing costs to be $37,960. These costs were incurred as a result of staff activities in preparation for the pilot including the following:

- Web site construction;
- Design and development of slides and posters;
- Distribution of awareness materials; and
- Participation in public awareness events, Neighborhood Watch programs and other community events.

San Jose's pilot expenditures are summarized in Table 1.

Reason For Expenditure	1997 – 1998 Cost	1998-1999 Cost	Pilot Total Cost
Equipment Purchase	$101,639	-	$101,639
Equipment Maintenance	-	$91,600	$91,600
Engineering and Project Management Services from Pacific Bell	$75,999	-	$75,999
Public Education Campaign	$22,280	-	$22,280
San Jose City Staff	$37,960	-	$37,960
Total	**$237,878**	**$91,600**	**$329,478**

Table 1

Table 2 summarizes the San Jose Police Department's estimated expenditures for staff activities in preparation for the pilot.

Staff Activity	Estimated Cost
40% of Senior Public Safety Dispatcher (PSD) for a six month period	$28,000
15% of Clerical Aide for a six month period	$7,500
Call Management - System Police Officer	$1,000
Call Management - System Senior Public Safety Dispatcher (PSD)	$210
Call Management System – Public Safety Dispatchers (PSDs)	$1,250
Total	**$37,960**

Table 2

City of San Diego Costs

Table 3 below summarizes the activities and related costs associated with the first phase of the city's public education campaign.

Activity	Number	Duration	Cost
Bus Shelter Advertisement	50 bus shelters	12 weeks 8/98 – 10/98	$32, 945
Billboard Advertisement	8 locations	One bill board per month for 8 months 11/98-7/99	$38,760
Total Cost			$71,705

Table 3

Table 4 on the following page summarizes the second phase of San Diego's public education campaign activities.

Activity	Number	Duration	Language	Cost
Bus Shelter Advertisements	50 bus shelters	12 weeks (5-99-7/99)	English and Spanish	$26,299
	30 bus shelters	12 weeks (9/99-11/99)	English and Spanish	$10,200
Television Advertisements	30-second public service announcements on local cable TV	N/A	English	$2,113
Billboard Advertising	4 locations	One billboard per month for 4 months (11/99-2/00)	English	$17,000
Grocery Store Receipt Advertisements	30 stores	12 weeks (9/99-11/99)	English	$9,120
Refrigerator Magnets	62,491	N/A	English and Spanish	$8,429
Bookmarks	25,000	N/A	English	$3,565
Rulers	25,000	N/A	English	$2,066
Erasers	15,000	N/A	English	$3,883
Total				$82,675

Table 4